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Justice Among the Ashes: How Government Compensation Facilities Can Bring Justice to Disaster Victims

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ESSAY

JUSTICE AMONG THE ASHES: HOW GOVERNMENT COMPENSATION FACILITIES CAN BRING JUSTICE TO DISASTER VICTIMS

*Lindy Rouillard-Labbé**

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INTRODUCTION

How should governments provide financial assistance to disaster victims in order to maximize their satisfaction? What are the key factors that influence whether victims think the facility created to process and resolve their claims for disaster compensation is fair?

Of course, a priority when a disaster occurs is to get the victims back on their feet.¹ States are increasingly called upon to provide financial assistance to those affected by natural hazards. The Federal Emergency Management Agency (“FEMA”) has provided nearly US\$10.5 billion to Hurricane Katrina victims.² After the 1993 great floods in the American Midwest, the US Congress reimbursed more than US\$6 billion for property damage.³ A few hundred miles north,

1. The term disaster (or catastrophe) generally designates an event or situation that has a very low probability of materializing and that, if it occurs, will generate great and sudden harm, thereby overwhelming local capacities and necessitating external assistance. See VÉRONIQUE BRUGGEMAN, *COMPENSATING CATASTROPHE VICTIMS – A COMPARATIVE LAW AND ECONOMICS APPROACH* 6 (2010); Daniel Farber, *Symposium Introduction: Navigating the Intersection of Environmental Law and Disaster Law*, 2011 BYU L. REV. 1783, 1787-88 (2011).

2. See *Louisiana Hurricane Katrina (DR-1603)*, FED. EMERGENCY MGMT. AGENCY (June 17, 2014), <http://www.fema.gov/disaster/1603?page=3%2C0%2C4#tabs-1> (last visited Oct. 1, 2014). This total includes dollars approved under Individual Assistance, Individual and Households Program, Housing Assistance, and Other Needs Assistance.

3. Charles Theiling, *Ecological Status and Trends of Upper Mississippi System 1998*, at 15-5 (1998).

in Canada, more than CAN\$700 million was distributed after the 1998 devastating ice storm in eastern Ontario and southern Quebec.⁴ Even in the context of man-made disasters, there have been instances where governments have stepped in and provided compensation to victims and victims' survivors. The most frequently cited example is the Victim Compensation Fund ("VCF") created by Congress days after the 9/11 terrorist attacks.

In establishing claim resolution facilities⁵ for disaster victims, governments face numerous daunting questions: what should the eligibility criteria be; what level of evidence should the facilities require; should there be a cap placed on compensation; should claimants have a right to a hearing or a right to appeal; etc.⁶ The answers given to these questions are crucial, as they will affect the perceived fairness of damage awards—by political leaders, the general population, and *the affected beneficiaries*—and this acceptance is an essential component of the facilities' legitimacy.⁷

Surprisingly, despite the substantial amount of money governments recurrently invest in disaster compensation facilities and despite the importance of the beneficiaries' opinion for the facilities' legitimacy, there is little empirical evidence of what the beneficiaries think of these facilities.⁸ The vast literature on perceived procedural and distributive justice has only sparsely penetrated the area of claims processing facilities for disaster victims. The little we know comes

4. *Canadian Disaster Database*, PUB. SAFETY CAN., <http://cdd.publicsafety.gc.ca/srchpg-eng.aspx?dynamic=false> (last visited January 2, 2014)(Select "New Brunswick", "Ontario", and "Québec" in "Location"; select "Winter Storm" in "Event Type"; enter "1998" to "1998" in "Time Period"; then follow "Search" hyperlink).

5. McGovern defines "claims resolution facilities" as "a generic term used to describe a wide range of entities that process and resolve claims made against a potential funding source." Francis E. McGovern, *The What and the Why of Claims Resolution Facilities*, 57 STAN. L. REV. 1361, 1361 (2005). I will use the terms "claims resolution facilities" or "claims processing facilities" and "government compensation programs" interchangeably.

6. See generally Robert R. Rabin, *Some Thoughts on the Efficacy of a Mass Toxics Administrative Compensation Scheme*, 52 MD. L. REV. 951, 964-78 (discussing the critical issues to be addressed in the design of an administrative compensation scheme).

7. See generally Stephanie Smith & Janet Martinez, *An Analytic Framework for Dispute Systems Design*, 14 HARV. NEGOT. L. REV. 123, 131 (2009) (noting the value of studying stakeholders' interests for the legitimacy, credibility and good functioning of a dispute system); McGovern, *supra* note 5, at 1378 (discussing strategies to achieve legitimacy in claims resolution facilities).

8. Cf. KENNETH R. FEINBERG, WHO GETS WHAT: FAIR COMPENSATION AFTER TRAGEDY AND FINANCIAL UPHEAVAL (2012) (discussing design strategies for disaster compensation facilities); McGovern, *supra* note 5, at 1375-79 (discussing design strategies to achieve legitimacy in claims resolution facilities).

from research studying specific aspects of claimants' experience with the 9/11 VCF, a fund that was both unprecedented and unlikely to be replicated in the future. These studies show that claimants were dissatisfied with the VCF, that they evaluated their experience not only in terms of monetary, but also non-monetary goals, and that they expected a compensation award based on tort distributive principles—that is, full compensation.⁹

In this Paper, I present the results of a survey aiming to puzzle together these pieces of information in order to fully understand what makes disaster victims think a government compensation program is fair or not. The research focuses on the compensation facilities for the victims of the historic floods that swept across Manitoba, Canada, in Spring 2011. I chose to study these compensation facilities because they present a more modest compensation facility, whose model is more likely to be replicated in the future, and involve a different, perhaps more recurring context—that of “natural” disasters.

Part I sets out the general background about the floods. This disaster was selected because it was unprecedented in terms of scope, magnitude, duration, and costs of recovery. Additionally, because of the potential natural explanation for the event, this case allows for drawing interesting parallels with studies about man-made disasters such as the 9/11 terrorist attacks.

In Part II, I review areas of literature on which this research builds. The psychology as well as law and society literatures provide a context for identifying the reasons why individuals tend to judge disasters as “not natural.” These literatures also illustrate the consequences of this perception in terms of expectation of redress and justice. After explaining the multi-dimensional concept of justice, I discuss prior empirical research on facility claimants' perceptions of justice and identify the need for more empirical research.

In Part III, I briefly describe the methodology behind the study. I conducted nine preliminary interviews and surveyed residents of two Manitoban communities hit by the floods. Results were also validated in a third Manitoban community also affected by the floods.

9. See Brian H. Bornstein & Susan Poser, *Perceptions of Procedural and Distributive Justice in the September 11th Victim Compensation Fund*, 17 *CORNELL J.L. & PUB. POL'Y* 75, 90–91 (2007); Gillian K. Hadfield, *Framing the Choice Between Cash and the Courthouse: Experiences with the 9/11 Victim Compensation Fund*, 42 *LAW & SOC'Y REV.* 645, 660–73 (2008); Deborah R. Hensler, *Money Talks: Searching for Justice Through Compensation for Personal Injury and Death*, 53 *DEPAUL L. REV.* 417, 444–48 (2003).

In Part IV, I present the survey results. I found that the perceived severity and persistence of material damage, as well as attribution of cause to natural forces, influence victims' perception of justice of the disaster compensation programs, while other variables such as the amount of compensation did not. This finding partly contradicts and partly confirms previous research on the 9/11 VCF.

In Part V and the Conclusion, I discuss the implications of the Study in more detail. Essentially this Paper aims at building the empirical foundation for the pending policy debate on how best to compensate victims of disasters. The results offer strong support to those calling for process pluralism, where the facility offers a variety of claims resolution techniques to disaster victims, and for retaining the tort system above the limits of the government compensation programs. Future disasters, natural or man-made, will unfortunately occur in Canada, in the United States, and elsewhere. We therefore need to consider what approach should be taken to compensate individuals that suffer losses and what policies are needed to further that approach.

I. BACKGROUND

A. 2011 Floods in Manitoba

Many Manitobans remember the year 2011 as one of tragedy and despair. They were used to seeing the flow of water increase in late winters and early springs because of high precipitation and melting snow. In 2011, however, numerous Manitoban rivers and creeks reached historic levels, some spilling over their banks, flooding fields and cities.

The Assiniboine River is one of the major river systems of the province, carrying water from Saskatchewan and North Dakota. In order to reduce the river's flows and prevent flooding along its shore, the Manitoban government opened the Portage Diversion, a water control structure constructed in 1971 to divert water from the Assiniboine River into Lake Manitoba. The government's handling of the Portage Diversion was later criticized, and many argued that it caused or aggravated the flooding around Lake Manitoba, thus resulting in "artificial floods."¹⁰ Without getting into the details of

10. See, e.g., JON GERRARD, FINAL REPORT - FLOOD OF 2011: THE FLOOD WHICH SHOULD NEVER HAVE BEEN AS SEVERE AS IT WAS 46 (2012), *available at*

this debate,¹¹ suffice it to say that, with the inflows from the Portage Diversion and the Waterhen River, Lake Manitoba's water level rose, and it ultimately flooded many lakeshore communities. To make matters worse, in May 2011, powerful winds whipped across the swollen lake, creating large waves that pounded the shore and washed inland. It took months for the Lake Manitoba water to return to its nest.

In the midst of the crisis, Canadian military troops were deployed in different areas of the province to help with the flood. Many people, both paid employees and volunteers, spent long hours assisting with emergency measures. At the peak of the floods, over 7000 people from more than 150 communities were forced to evacuate their homes.¹² The agricultural community was forced to relocate tens of thousands of animals to safe lands. Many properties were heavily damaged. Victims included homeowners, cottage owners, business owners, ranchers, and farmers. A majority lived in rural municipalities, but city residents were also affected. In

<http://jongerrardmla.ca/wp-content/uploads/2014/03/Final-2011-Flood-Report-by-Dr-Jon-Gerrard.pdf> ("In essence, Lake Manitoba was used as a water storage reservoir to protect people between Portage la Prairie and Winnipeg and in Winnipeg. That the Portage diversion and Lake St. Martin were used effectively to reduce damage along the Assiniboine River and in Winnipeg is undeniable.").

11. This Paper does not intend to determine whether the government's handling of the water control structure caused or aggravated the floods. This analysis has been partially done by the four different flood reviews commissioned by the government: the Flood Review Task Force, Lake Manitoba and Lake St. Martin Regulation Review Committee, the Flood Mitigation Study, and the Surface-water Management Strategy. *See generally* FLOOD REVIEW TASK FORCE, MANITOBA 2011 FLOOD REVIEW TASK FORCE REPORT (2013), *available at* http://www.gov.mb.ca/asset_library/en/2011flood/flood_review_task_force_report.pdf; LAKE MANITOBA/LAKE ST. MARTIN REGULATION REVIEW, FINDING THE RIGHT BALANCE: A REPORT TO THE MINISTER OF INFRASTRUCTURE AND TRANSPORTATION (2013), *available at* http://www.gov.mb.ca/asset_library/en/2011flood/regulation_review_report.pdf; ASSINIBOINE RIVER AND LAKE MANITOBA BASINS FLOOD MITIGATION STUDY (2012), *available at* <http://gov.mb.ca/mit/floodinfo/floodproofing/reports/index.html>; MANITOBA CONSERVATION AND WATER STEWARDSHIP, MANITOBA'S SURFACE WATER MANAGEMENT STRATEGY, *available at* http://gov.mb.ca/waterstewardship/questionnaires/surface_water_management/pdf/surface_water_strategy_final.pdf (last visited Oct. 12, 2014).

12. *See Manitoba Floods (2011)*, CANADIAN RED CROSS, <http://www.redcross.ca/donate/your-donation-in-action/past-appeals/domestic/2011/manitoba-floods> (last visited June 10, 2014); *Harper Government Announces Additional Assistance to Manitoba for 2011 Spring Flooding*, PUB. SAFETY CAN. (July 3, 2012), *available at* <http://www.publicsafety.gc.ca/cnt/nws/nws-rlss/2012/20120703-eng.aspx>.

consequence, these floods have been the most costly in province history: the recovery costs exceed CAN\$1.2 billion.¹³

Although these numbers might seem low compared to some recent US natural disasters, keeping in mind Canada's vast territory and low population density and the fact that the floods hit mostly rural areas, the 2011 flooding was a major disaster for Manitoba. It therefore called for extraordinary government assistance measures.

B. Government Disaster Assistance

As a consequence of the Canadian constitutional framework, provinces are responsible for designing, developing, and delivering disaster-related financial assistance.¹⁴ Since 1987, the province of Manitoba has had a general disaster financial assistance ("DFA") program,¹⁵ which was expanded in the midst of the 2011 floods with six special programs, each of which had its own purpose, eligibility criteria, terms, and conditions.¹⁶ All three communities targeted by this study fell into the geographic locations covered by the Lake Manitoba Financial Assistance Program ("Lake Manitoba FAP").

The Lake Manitoba FAP first assisted agricultural crop and livestock producers with transportation of livestock, flood mitigation measures, feed requirements, damage to agricultural infrastructure, etc. The Program also reimbursed small businesses for their property damage and loss of income due to flooding.

Most relevant to this research, however, the Program compensated residents for damages incurred as a direct result of the high water level.¹⁷ The Program reimbursed individual claimants for:¹⁸

13. US\$1.228 billion. See MANITOBA 2011 FLOOD REVIEW TASK FORCE REPORT, *supra* note 11, at 2.

14. However, since 1970, through agreements between the federal and provincial governments, the federal government has provided financial assistance to provincial governments when the cost of dealing with a disaster would place an undue burden on the provincial economy. See PUB. SAFETY CAN., GUIDELINES FOR THE DISASTER FINANCIAL ASSISTANCE ARRANGEMENTS (2007), available at <http://www.publicsafety.gc.ca/prg/em/dfa/index-eng.aspx>.

15. See Emergency Measures Act, R.S.M., c. E80 (Can. Man.).

16. See generally *Flood 2011: Building and Recovery Action Plan*, MAN. AGRIC. SERVS. CORP., <http://www.masc.mb.ca/masc.nsf/floodrecovery.html> (last visited Mar. 13, 2013).

17. I use the terms "compensation" and "assistance" interchangeably. Although the various disaster assistance programs do not aim at fully compensating the losses, they provide monetary awards in consideration of the damage suffered, which is sufficient in my view to make them *compensation* programs. It is true, however, that some aspects of these programs—

Emergency flood mitigation measures (up to CAN\$10,000),¹⁹

Property damage²⁰ (up to CAN\$270,000 for a principal residence and CAN\$90,000 for a non-principal residence),²¹

Incremental living costs incurred as a result of forced temporary relocation (as determined by the Program Administrator), and

Measures to reduce vulnerability to future flood damage, such as house elevation (up to CAN\$100,000 for principal residence and CAN\$40,000 for non-principal residence).²²

Costs for which insurance coverage was available at reasonable cost were excluded,²³ as were intangible losses, medical expenses, loss of income, and loss of market value. Interestingly, these payments were not contingent on claimants waiving their rights under the tort system. The Lake Manitoba FAP was therefore not developed

such as assistance for measures protecting residence from future flood damages—do not fall within the realm of compensation, but they are not the focus of this research. *See* MANITOBA 2011 FLOOD REVIEW TASK FORCE REPORT, *supra* note 11, at 104.

18. *See generally* MAN. AGRIC. SERVS. CORP., LAKE MANITOBA FINANCIAL ASSISTANCE PROGRAM, PART C – TERMS AND CONDITIONS para. 9 (2011), *available at* http://www.masc.mb.ca/masc.nsf/terms_conditions_lake_manitoba_part_c-07.pdf.

19. *See generally id.* US\$10,231. All amounts are converted based on the exchange rate as of May 24, 2011, the day the Program was announced.

20. *Id.* Property damage includes costs to replace damaged infrastructure and inventory or to repair them to their pre-damage condition, without deducting for depreciation.

21. *Id.* Respectively US\$276,237 and US\$92,079. If permanent protection against future flood conditions is undertaken in a manner approved by the Program Administrator, the 10% deductible is waived, bringing the ceiling to CAN\$300,000—US\$306,930—for principal residences, and CAN\$100,000—US\$102,310—for temporary residences.

22. *Id.* This financial support is provided either under the Lake Manitoba FAP (up to CAN\$22,000—US\$22,508) or under another program called the Individual Flood Protection Initiative (“IFPI”) (up to CAN\$100,000—US\$102,310—for principal residence and CAN\$40,000—US\$40,924—for non-principal residence). The amount received under the Lake Manitoba FAP reduced on a dollar for dollar basis the amount received under the IFPI program. Homeowners must contribute 14% of the costs.

23. In Canada, private home insurance typically excludes flood losses from coverage. *See* SWISS RE & INSTITUTE FOR CATASTROPHIC LOSS REDUCTION, MAKING FLOOD INSURABLE FOR CANADIAN HOMEOWNERS 37–38 (2010), *available at* www.iclr.org/images/Making_Flood_Insurable_for_Canada.pdf. However, public insurance provided to Canadian farmers—through a program called Agri-recovery—played a major role in insurance compensation for victims of the floods. In March 2012, more than CAN\$111.5 million—US\$114 million—had been paid under the Manitoba Agri-recovery program to farmers affected by the floods. *See* GOV’T OF MAN., 2011 FLOOD COMPENSATION PROGRAMS (Mar. 31, 2012), *available at* http://www.gov.mb.ca/asset_library/en/2011/flood/financial/flood_compensation_programs_033112.pdf. Compensation to farmers is not, however, the focus of this study.

as an alternative to the tort system, but rather as a complement when it was assumed that the tort system had no role to play.²⁴

In order to receive compensation, residents had to file an application form on or before November 30, 2011, accompanied by sufficient evidence and documentation to verify the amount of losses incurred. In total, 5573 individuals and small businesses filed a claim with the Lake Manitoba FAP, and CAN\$48,315,214 had been distributed as of September 30, 2012.²⁵ The Program Administrator determined the amounts of compensation based on the evidence, documentation claimants submitted, and an on-site inspection. The terms and conditions did not provide claimants with a right to a hearing, nor did they specify any deadline for the Program Administrator to render its decision. If claimants were not satisfied with the award, they could appeal it to the Building and Recovery Action Plan Appeals Commission. The Commission held non-public hearings where parties could present new evidence and make representations. As of September 2012, 223 awards had been appealed to the Appeals Commission.²⁶

II. THEORETICAL FRAMEWORKS

The purpose of this Research Study is to explain disaster victims' perceptions of justice towards government compensation programs. In Part II.A, I will review the psychology as well as law and society literatures, which provide a context for identifying the reasons why individuals tend to look for human agency in explaining a disaster and why they tend to expect justice and redress. In Part II.B,

²⁴ However, Lake Manitoba flood victims have launched a CAN\$260 million—US\$266 million—class-action lawsuit against the Manitoba government for what they claim was the deliberate flooding of the lake during the 2011 floods. In addition, First Nation members have already filed two class-actions, in which they allege that governments and government entities were negligent in failing to properly design and operate water control structures, and in failing to provide appropriate warning of potential flooding. These three lawsuits are still ongoing. See Statement of Claim, *Pisclevich v. Manitoba*, [2013] No. CI 13-01-82597 (Can. Que.); Statement of Claim, *Anderson v. Manitoba*, [2012] No. CI 12-01-77146 (Can. Que.); *First Nations Sue Province Over Flooding*, WINNIPEG FREE PRESS, <http://www.winnipegfreepress.com/local/first-nations-sue--province-over-flooding-130336763.html> (last visited Oct. 1, 2014).

²⁵ US\$49,431,295. These numbers exclude claims by agricultural crop and livestock producers as well as claims for permanent flood mitigation measures under the Individual Flood Protection Initiative. See MANITOBA 2011 FLOOD REVIEW TASK FORCE REPORT, *supra* note 11, at 107-08.

²⁶ See *id.*

I will discuss the various dimensions of justice and identify gaps in our empirical knowledge about justice perceptions in the context of compensation after disaster.

A. Natural or Man-Made Disaster

Psychologists developed the attribution theory to describe the processes by which individuals understand the cause of an event, the factors that influence those processes, and the consequences of different attributions.²⁷ Although harmful events can often be seen as the result of multiple concurrent forces, psychologists have suggested that individuals tend to focus on one condition as “the” cause.²⁸ This condition can be internal to the self (*e.g.*, the individual’s personality traits or motivation) or external (*e.g.*, other people or impersonal forces).²⁹ Causal attribution involves a judgment about the antecedent(s) of an event. Unlike responsibility attribution, however, it does not involve a judgment about whether people’s behavior conformed to the legal and moral standards of appropriate behavior.³⁰

There can be something counterintuitive in talking about attribution to something other than impersonal forces in the context of flooding—an event we often label as a “natural” disaster. In common language, we refer to some disasters as “natural” and others as “man-made,” thereby suggesting that it is possible to classify disasters

27. Yoshitaka Kumagai et al., *Why Are Natural Disasters Not “Natural” for Victims?*, 26 ENVTL. IMPACT ASSESSMENT REV. 106, 110 (2006); *see also* FRITZ HEIDER, *THE PSYCHOLOGY OF INTERPERSONAL RELATIONS* 296 (1958); Edward E. Jones & Keith E. Davis, *From Acts to Dispositions: The Attribution Process in Person Perception*, in *ADVANCES IN EXPERIMENTAL SOCIAL PSYCHOLOGY* 219, 222-37 (L. Berkowitz ed., 1965); Harold H. Kelley, *Attribution Theory in Social Psychology*, 15 NEB. SYMP. ON MOTIVATION 192 (1967) (developing the attribution theory to describe the processes through which individuals try to master the causal structure of their environment).

28. DEBORAH R. HENSLER ET AL., *COMPENSATION FOR ACCIDENTAL INJURIES IN THE UNITED STATES* 146-47 (1991).

29. Kumagai et al., *supra* note 27, at 110; *see also* KELLY G. SHAVER, *THE ATTRIBUTION OF BLAME: CAUSALITY, RESPONSIBILITY, AND BLAMEWORTHINESS* 138 (1985); Joel T. Johnson & Jerome Drobny, *Proximity Biases in the Attribution of Civil Liability*, 48 J. PERSONALITY & SOC. PSYCHOL. 283, 288 (1985).

30. Kumagai et al., *supra* note 27, at 110; *see also* SHAVER, *supra* note 29, at 87; Dan Coates & Steven Penrod, *Social Psychology and the Emergence of Disputes*, 15 *LAW & SOC’Y REV.* 655 (1980); Frank D. Fincham & Joseph M. Jaspars, *Attribution of Responsibility: From Man the Scientist to Man as Lawyer*, 13 *ADVANCES IN EXPERIMENTAL SOC. PSYCHOL.* 81, 104-06 (1980); Kathleen M. McGraw, *Subjective Probabilities and Moral Judgments*, 21 *J. EXPERIMENTAL SOC. PSYCHOL.* 501, 509-10 (1985); Barry R. Schlenker et al., *The Triangle Model of Responsibility*, 101 *PSYCHOL. REV.* 632, 634 (1994).

according to the force inducing them. Floods, earthquakes, wild fires, and hurricanes are usually seen as natural disasters, while acts of terrorism or industrial accidents are commonly understood as man-made (or technological) disasters. Yet scholars have debated for years whether and where this distinction between natural and man-made disasters should be drawn.³¹

Some argue that disasters must be defined according to their social consequences, not upon their characteristics or causal factors.³² Under this approach, there would be no such thing as a natural or man-made disaster. Other scholars attribute high significance to the characteristics of the disaster—its origin and time, power, destructiveness, predictability, potential for future occurrence, etc. But there is no consensus as to where the line between natural and man-made disaster stands—or even whether such line should be drawn.³³ Some have suggested drawing the distinction between natural disasters and man-made disasters in terms of degree.³⁴ Natural disasters could therefore be conceived as those events that, on the spectrum of disasters, are located closer to the “nature-induced” end than to the “human-induced” one, but still generally bear attributes of both.

These approaches all assume the objective reality of the phenomenon of natural or man-made disasters. However, this objective reality might not always be in line with people’s subjective interpretation of the etiology of disasters, which is the focus of this

31. See generally J. Stephen Kroll-Smith & Stephen R. Couch, *What is a Disaster? An Ecological-Symbolic Approach to Resolving the Definitional Debate*, 9 INT’L J. MASS EMERGENCIES & DISASTERS 355, 356-60 (1991); Jean T. Blocker & Darren E. Sherkat, *In the Eyes of the Beholder: Technological and Naturalistic Interpretations of a Disaster*, 6 INDUS. CRISIS Q. 153, 155-56 (1992) (summarizing and critiquing the two main approaches to the study of disasters).

32. See, e.g., Enrico L. Quarantelli, *What is Disaster? The Need for Clarification in Definition and Conceptualization in Research*, in DISASTERS AND MENTAL HEALTH: SELECTED CONTEMPORARY PERSPECTIVES 41 (Barbara J. Sowder ed., 1985). Kroll-Smith and Couch refer to this approach as the generic perspective of disasters. See Kroll-Smith & Couch, *supra* note 31, at 356-59.

33. For example, experts do not agree on the characterization of airplane crashes as natural or man-made disasters. Compare Charles B. Perrow, *NORMAL ACCIDENTS: LIVING WITH HIGH RISK TECHNOLOGIES*, 123-69 (1999), with Michael Berren et al., *A Typology for the Classification of Disasters*, 16 COMMUNITY MENTAL HEALTH J. 103, 106-07 (1980). Kroll-Smith and Couch refer to this approach as the event-quality perspective of disasters. See Kroll-Smith & Couch, *supra* note 31, at 359-60.

34. See, e.g., Lawrence M. Friedman & Joseph Thompson, *Total Disaster and Total Justice: Responses to Man-Made Tragedy*, 53 DEPAUL L. REV. 251, 251 (2003).

Paper.³⁵ Psychological research shows that victims of what we commonly refer to as “natural” disasters tend to look for human agency in explaining the event.³⁶ For example, in a survey of victims of a major urban flood, Blocker and Sherkat found that 65% of the respondents assigned responsibility for the disaster to human agents and technological failures, despite the unprecedented rainfall that could have qualified this disaster as “natural.”³⁷

Sociologists suggest that this tendency to blame man over nature is the result of the transformation of our disaster ideology. In primitive cultures, disasters were attributed to divinely ordained patterns of relationships. In more modern worldviews, and until about one hundred years ago, natural causes replaced divine actions. Natural disasters were seen as the inevitable result of automatic processes of nature. However, in Western countries today, people believe that society has the technological capacity to control natural forces and that government entities should protect the public from most natural disasters. When these expectations are not met, people engage in a blame attribution process.³⁸

This change in disaster ideology echoes the transformation of legal culture described by law and society scholars. They have argued that collective perceptions of accidents transformed from acceptance of the unfortunate and inexplicable to a general expectation of justice and recompense for injuries and loss.³⁹ Lawrence Friedman explains this change in the legal culture as a cycle of demand and response. Advances in science and technology increased the possibility of control over nature, and people came to feel that it was possible to control situations of peril. As a result, people demanded a more active

35. The subjectivity of disaster is recognized by Kroll-Smith and Couch in the ecological-symbolic approach to disaster they proposed as an alternative to the two traditional approaches to the study of disasters. *See* Kroll-Smith & Couch, *supra* note 31, at 361-65.

36. *See, e.g.*, Kumagai et al., *supra* note 27 (suggesting a conceptual framework, based on psychology research, to understand attribution behavior in natural disaster); *see also* A. DeMan et al., *Assignment of Responsibility and Flood Hazard in Catahoula County, Louisiana*, 17 *ENV'T & BEHAV.* 371, 371-72 (1985). *See generally* SHAVER, *supra* note 29, at 132-36 (discussing how the need to believe in a just world and to protect themselves influence ascriptions of responsibility to others).

37. Blocker & Sherkat, *supra* note 31, at 153.

38. *See generally id.* at 164 (discussing the evolution of disaster ideology). *See* MARY DOUGLAS & AARON WILDAVSKY, *RISK AND CULTURE: AN ESSAY ON THE SELECTION OF TECHNICAL AND ENVIRONMENTAL DANGERS*, 30 (1982) (suggesting that current perceptions of disasters have come full circle from those present in primitive cultures).

39. *See, e.g.*, LAWRENCE M. FRIEDMAN, *TOTAL JUSTICE* 5 (1994).

role of the government in exercising this control. Response from the government led to greater expectations and changed people's idea about what was possible, natural, and feasible. This, in turn, led to new demands for government interventions. The end result is a legal culture where people expect fairness in every setting of their life and redress for any calamity that happens. This is what Friedman calls "Total Justice."⁴⁰

One objective of this Paper is to test one branch of the Total Justice cycle: how unmet expectations for control of disasters influence demands for redress. Or, in other words, whether attribution—to those who maybe could have done something to control the disaster—impacts victims' sense of fairness in the compensation process.

To my knowledge, this question has not been empirically addressed before. If some attribution studies inquired about the consequences of victims' attribution—on activism for example⁴¹—they did not measure the consequences on perceptions of justice. And yet, there are some suggestions, derived from studies on non-victims' perceptions of justice, that attribution for disaster losses may be linked with justice judgments.⁴² In this Paper, I show that this correlation also holds true for disaster victims themselves.

B. *Perception of Justice*

A law's ideal perceived justness is not always achieved in practice. In the context of claims processing facilities, some commentators have expressed doubt as to whether claimants obtain

40. These psychological and cultural explanations of attributive behavior do not mean that people's causal judgments are always incorrect or incomplete. Despite the fact that the causal picture of natural disasters is often complex, human agency can sometimes be identified, scientifically or legally, as causative of disasters.

41. See E. Burke Rochford & Jean T. Blocker, *Coping with Natural Hazards as Stressors: The Predictors of Activism in a Flood Disaster*, 23 ENV'T & BEHAV. 171, 185 (1991) (showing that victims' interpretation of a disaster as controllable is directly related to activism).

42. See, e.g., Udo Rudolph et al., *A Meta-Analytic Review of Help Giving and Aggression from an Attributional Perspective: Contributions to a General Theory of Motivation*, 18 COGNITION & EMOTION 815, 817-19 (2004) (discussing studies showing that non-victims' attribution judgments determine their helping behavior towards victims); see also MICHELE LANDIS DAUBER, *THE SYMPATHETIC STATE: DISASTER RELIEF AND THE ORIGINS OF THE AMERICAN WELFARE STATE* 11-16 (2013) (arguing that public support for government relief has historically been driven by a narrative of blameless victims, or, in other words, that attribution of responsibility to victims may reduce public support for disaster relief).

fairness. For example, Deborah Greenspan and Matthew Neuburger wrote that “[a] system designed to settle claims in the most efficient manner may actually be the opposite of what claimants want.”⁴³ This research tests this statement by asking what makes government compensation programs just according to claimants.

Justice is a multi-dimensional concept.⁴⁴ The following Section describes the three core justice dimensions—namely, retributive justice, procedural justice, and distributive justice.⁴⁵

1. Retributive Justice

Retribution is arguably the most basic and most pervasive justice reaction associated with human social life.⁴⁶ It refers to a desire to punish the violator of a rule, norm, or law. Retribution is a way for victims to “get even” with the one who has wronged them.⁴⁷ In that sense, retribution is very close to the concept of corrective justice—one theory of civil compensation. The two concepts have been distinguished on the basis that retribution is more concerned with the *subjective* psychological reaction of the victim, while corrective

43. Deborah E. Greenspan & Matthew A. Neuburger, *Settle or Sue? The Use and Structure of Alternative Compensation Programs in the Mass Claims Context*, 17 *ROGER WILLIAMS U. L. REV.* 97, 119 (2012); Janet Cooper Alexander, *Procedural Design and Terror Victim Compensation*, 53 *DEPAUL L. REV.* 627, 689-91 (2003) (criticizing the 9/11 VCF); Jonathan P. Hooks & Trisha B. Miller, *The Continuing Storm: How Disaster Relief Excludes Those Most in Need?*, 43 *CAL. W. L. REV.* 21, 58 (2006) (noting that FEMA’s relief and assistance proved ineffective for the most vulnerable and marginalized victims of Katrina); Tom R. Tyler & Hulda Thorisdottir, *A Psychological Perspective on Compensation for Harm: Examining the September 11th Victim Compensation Fund*, 53 *DEPAUL L. REV.* 355, 358 (2003) (questioning whether the 9/11 VCF created distributive and procedural justice for claimants). *But cf.* Richard Lempert, *Low Probability/High Consequence Events: Dilemmas of Damage Compensation*, 58 *DEPAUL L. REV.* 357, 379 (2009) (comparing the successes of no-fault schemes and those of the tort system for compensating disaster victims).

44. *See generally* John P. Goldberg, *Doing Justice in the Face of Disaster*, 45 *AKRON L. REV.* 583 (2012) (discussing the various dimensions of justice in the context of disaster).

45. Some scholars distinguish between procedural justice and interactional justice: the former being the fairness of formal procedures and the latter the fairness of the social process. *See, e.g.*, Robert J. Bies & John S. Moag, *Interactional Justice: Communication Criteria of Fairness*, in *RESEARCH ON NEGOTIATION IN ORGANIZATIONS* 43, 45-46 (Roy J. Lewicki et al. eds., 1986). However, Tom Tyler and E. Allan Lind demonstrated that there is little difference in reactions to procedural and interactional injustices, and therefore this Paper addresses them together. *See* Tom R. Tyler & E. Allan Lind, *Procedural Justice*, in *HANDBOOK OF JUSTICE RESEARCH IN LAW* 65, n.2 (Joseph Sanders & Lee Hamilton eds., 2000).

46. Neil Vidmar, *Retribution and Revenge*, in *HANDBOOK OF JUSTICE RESEARCH IN LAW*, *supra* note 45, at 31.

47. Joseph Sanders & V. Lee Hamilton, *Justice and Legal Institutions*, in *HANDBOOK OF JUSTICE RESEARCH IN LAW*, *supra* note 45, at 3, 6.

justice focuses more on what is *objectively* needed to restore the balance.⁴⁸ Retribution seeks to restore the balance by punishing the wrongdoer, and corrective justice does it by compensating the victim. Still, these two concepts are closely related, and the pursuance of corrective justice remedies is sometimes thought of as a civilized transformation of the more basic instinct of retribution.⁴⁹

2. Procedural Justice

Procedural justice refers to whether decisions are made in ways that are fair. People's reactions and acceptance of decisions of legal authorities are driven by their assessment of the fairness of the procedures through which these decisions were made. People are more satisfied with the outcome when they feel that the procedures were fair.⁵⁰ Faced with inequality of power between them and a legal authority, people use impressions of fairness as a heuristic to guide their compliance or resistance.⁵¹

A growing body of legal scholarship is now interested in describing non-monetary objectives of claimants and plaintiffs.⁵² There is now evidence that claimants and plaintiffs are motivated by a desire for promoting accountability, gaining information, seeking changes, and obtaining acknowledgement of their suffering. They do not necessarily fit with the often-reported image of self-interested rational actors whose conduct is driven by the desire to maximize personal gain. For example, in a study about the victims of the 9/11 terrorist attacks, Hadfield demonstrated that some victims' survivors evaluated the tradeoff between a cash payment through the VCF and the pursuit of litigation, not in terms of monetary compensation, but rather in light of their interests for information, accountability, and policy changes.⁵³ Such objectives are often achieved through the

48. *Id.* at 6.

49. *See generally id.* at 6-7 (comparing retribution and corrective justice).

50. *See* Tyler & Lind, *supra* note 45, at 65.

51. *See* E. Allan Lind et al., *Individual and Corporate Dispute Resolution: Using Procedural Fairness as a Decision Heuristic*, 38 ADMIN. SCI. Q. 224, 244 (1993).

52. *See, e.g.,* Hadfield, *supra* note 9, at 660-73; Elizabeth M. Schneider, *Grief, Procedure, and Justice: The September 11th Victim Compensation Fund*, 53 DEPAUL L. REV. 457 (2003) (analyzing the VCF through the lens of grief and trauma experienced by the claimants); Tom R. Tyler, *A Psychological Perspective on the Settlement of Mass Tort Claims*, 53 LAW & CONTEMP. PROBS. 199, 200-02 (1990) (discussing the considerations that affected satisfaction of claimants to the New Jersey Automobile Arbitration Program).

53. Hadfield, *supra* note 9, at 660-73.

procedures leading to an outcome, and not necessarily through the outcome itself,⁵⁴ hence the importance of procedural justice.

Research has identified a variety of factors influencing perceptions of procedural fairness. Tyler and Lind classified them in three categories: standing, trust, and neutrality.⁵⁵ Standing—or status recognition—refers essentially to the—perceived—opportunity that is given to claimants to voice their side of the story. Trust emphasizes claimants’ relational concerns, such as feeling that they are treated politely, with dignity and respect, by the decision-maker. Finally, neutrality relates to claimants’ perception of authorities’ legitimacy—whether the authorities are honest and consistent, and whether they guarantee unbiased treatment.

3. Distributive Justice

The concept of distributive justice refers to the fairness of the distribution of—generally scarce—conditions and goods.⁵⁶ There are multiple distributive justice principles, and they include allocation on the basis of need, equality, or equity—merit or contribution-based. A need-based distribution allocates the resources in a manner that maximizes the share of the poorest or most needy recipients. When equity values underlie the distribution, the recipients’ merit, or contribution—their efforts, sacrifice, ability, performance, etc.—guide the allocation. Equal distribution—where everybody gets an equal share of the resource—avoids the necessity of making comparisons between potential recipients.

The conditions under which allocations are defined as just or fair vary depending on the circumstances. For one thing, recipients’ and allocators’ definition of fair distribution may be different. Also, individuals’ preferences for—and assessment of—distributive principles vary depending on the good being distributed, the context of the distribution, the relationship of the parties, and individual characteristics. Research shows that people prefer “equitable or contributions-based rules in work situations where productivity is a central concern, an equal division where group harmony is paramount (such as in church groups), and a needs-based distribution rule in

54. *Cf.* Schneider, *supra* note 52, at 476-80 (comparing the process of the VCF with the process of the tort system, in terms of meeting 9/11 victims’ survivors needs).

55. Tyler & Lind, *supra* note 45, at 75.

56. MORTON DEUTSCH, *DISTRIBUTIVE JUSTICE: A SOCIAL-PSYCHOLOGICAL PERSPECTIVE* 31 (1985).

contexts focusing on social welfare” or in intimate caring relationships.⁵⁷

Tort principles—under which resources are allocated by the wrongdoer to a faultless plaintiff in order to make the latter “whole”—do not exactly fit within these three values of distributive justice. Wrongdoers are required to pay for plaintiffs’ loss of income, medical expenses, and non-monetary losses. Parity and equal treatment between plaintiffs is not really a concern for tort distribution. The need principle plays a very modest role in tort distribution. Although harms and injury may sometimes be a reliable proxy for need, the tort system more realistically focuses on losses rather than needs. In fact, because of the high value placed on individualized calculation of loss, higher-earning victims can (and generally will) receive greater awards than lower earners. In that sense, equity principles mainly shape the calculation of tort awards.⁵⁸

4. Emerging Issues and the Need for Empirical Research

In this Paper, I test justice theories in a novel context, that of government compensation after disasters. Although a large body of research now exists on procedural justice, it generally focuses on perceptions of individual litigants involved in civil or criminal disputes, or in alternative dispute resolution programs.⁵⁹ Similarly, applied research on distributive justice has emerged in the last two decades to assess justice perceptions in a variety of institutional settings—health care, income distribution in society, tax evasion, etc.⁶⁰ However, with the exception of the work on the 9/11 VCF, these studies have not addressed the issue of justice judgments in the context of government claims resolution facilities.

Three studies evaluating specific aspects of 9/11 victims’ experience with compensation provide useful insight for this Paper. First of all, Bornstein and Poser studied VCF claimants’ perceptions of procedural and distributive justice.⁶¹ They found that claimants

57. See Karen A. Hegvedt & Karen S. Cook, *Distributive Justice: Recent Theoretical Developments and Applications*, in HANDBOOK OF JUSTICE RESEARCH IN LAW, *supra* note 45, at 93, 96.

58. See generally Hensler, *supra* note 9, at 425-26 (comparing the tort system’s approach to other distribution principles).

59. See generally Tyler & Lind, *supra* note 45, at 71 (reviewing studies on procedural justice).

60. See Hegvedt & Cook, *supra* note 57, at 123.

61. See generally Bornstein & Poser, *supra* note 9.

were more satisfied with the procedural than distributive aspects of the Fund and that perceptions of justice were correlated with the claimant's relationship to the victim—spouse, parents, others—and the amount of compensation received from the Funds—although the correlation was only marginally significant for procedural justice. Justice judgments were not associated with gender or race.

Attributive judgments of 9/11 victims were assessed in a separate study.⁶² Results of Hadfield's online survey of 155 victims show that respondents blamed not only the terrorists for the attacks—on average attributing roughly a third the responsibility to terrorists. Respondents also blamed those who bore responsibility for preventing the terrorists from succeeding in their plan—US entities and officials, airline security firms, etc.—as well as all those whose actions entered the chain of events.

Finally, Hensler studied public comments made in reaction to the VCF's rules draft, with the goal of understanding how people felt about compensation.⁶³ She found that victims' survivors were more likely than other groups to use the language of equity, and they were even more likely to argue for incorporating tort principles in the VCF's rules. The debate over the 9/11 VCF, she concluded, was framed substantially by tort principles.

This Paper aims at puzzling together these pieces of information to fully understand claimants' perceptions of justice. I test distributive and procedural justice perceptions, distributive preferences, and attribution judgments, but my goal is to understand how these variables influence each other to ultimately identify what factors influence justice judgments.

The larger respondent population for the study reported in this Paper—234 respondents compared to 71 in Bornstein and Poser's study and 155 in Hadfield's study—may allow for deeper analysis of the determinants of perceptions of justice. Unlike Hensler's work, the present Study's inquiry takes place after victims experienced the compensation programs. It therefore allows us to analyze what, in their experience of the compensation programs, influenced their views on distribution principles.

The context of this study is also slightly different than that of the 9/11 VCF. While both 9/11 and the Manitoba floods can be

62. *See generally* Hadfield, *supra* note 9.

63. *Id.*

characterized as disasters, natural causes must be added to the equation in the context of the 2011 spring floods. Also, the amount of discretion granted to the VCF Special Master, the VCF's method used for calculating compensation—a modified tort-based approach,⁶⁴ and the almost limitless nature of the resources distributed by the VCF are without parallel in the Manitoban government compensation programs—and, in fact, in most government compensation programs.

This Study thus answers the need to investigate determinants of justice judgments of claimants to claims processing facilities. It does so in the context of a government disaster relief facility, whose general model is likely to be replicated in the future for a disaster where natural forces could be seen as—one of—the causes of the losses.

III. METHODOLOGY

A. Method

The purpose of this Paper is to identify what influences disaster victims' opinion of government compensation programs. I investigated this question in three ways. First, I conducted preliminary interviews with nine individuals who were either directly affected by the flooding, involved in the recovery process, or involved in one of the review committees. These interviews were used to build a survey questionnaire for the second main phase of the study, in which I surveyed residents of two Manitoban communities: Twin Lakes Beach ("TLB") and Lunder Beach & Sugar Point ("LB&SP").

These two areas were selected because they represent a variety of flooding experiences. TLB was said to be the hardest hit area, with the highest density of population.⁶⁵ Both LB&SP and TLB are mainly composed of cottage owners and landowners. There are approximately 115 households in LB&SP, and 300 in TLB.⁶⁶ If one uses election results as a proxy for political views, the political beliefs

64. See Matthew Diller, *Tort and Social Welfare Principles in the Victim Compensation Fund*, 53 DEPAUL L. REV. 719, 738-53 (2003) (discussing the tort and social welfare roots of the 9/11 VCF).

65. See Larry Kusch, *Cottagers Clamour for Compensation*, WINNIPEG FREE PRESS (Mar. 31, 2012), <http://www.winnipegfreepress.com/local/Cottagers-clamour-for-compensation-145419935.html?device=mobile>.

66. This information was provided by the Twin Lakes Beach Association and the Lunder Beach and Sugar Point Association.

in the two communities appear to be roughly divided between conservative and liberal views.⁶⁷ These two areas are located near Lake Manitoba and were flooded by water coming from the lake. The above-described debate as to whether diversion of water by government through the Portage Diversion caused the floods is very alive in these communities.

Considering the size of the research population in these two areas—approximately 415 households—no sample was drawn and all residents were included in the study. Respondents were recruited via an email—or a letter when no email address was available—that was distributed by two local associations—the Twin Lakes Beach Association and the Lunder Beach and Sugar Point Association—that forwarded it to their members. These associations are not specifically devoted to flood issues. Their mandate is generally to serve the interests of residents in the area, promote good fellowship among members, and promote good relations with surrounding communities. People involved in the associations believed that their listservs were fairly accurate, up-to-date, and included the vast majority of residents in the area.

In February 2013, the survey was sent to 104 email addresses of residents in LB&SP, and 321 email addresses and 25 regular mail addresses of residents in TLB.⁶⁸ In total, 450 surveys were sent. A follow-up email was sent ten days after the initial invitation. Responses were collected until March 2013. Respondents contacted by email received a link to the questionnaire, administered via an automated web-based survey system. Respondents contacted by regular mail received a paper copy of the questionnaire with a self-addressed stamped envelope. Responses were anonymous; however, respondents could voluntarily provide their contact information.

67. A majority of voters in the electoral division including TLB and LB&SP voted for a more conservative party (the Conservative Party—59.3% of votes) in the 2007 election, and for a more liberal party (the New Democratic Party—50.2% of votes) in the 2011 election. See *Summary of Votes Received*, ELECTIONS MANITOBA (2007), http://www.electionsmanitoba.ca/downloads/PDF_EDResults_GE2007.pdf (last visited Nov. 19, 2014) (Select “Interlake / Entre-les-lacs”). See also *Summary of Votes Received*, ELECTIONS MANITOBA (2011), http://www.electionsmanitoba.ca/downloads/PDF_EDResults_GE2011.pdf (last visited Nov. 19, 2014) (Select “Interlake / Entre-les-lacs”). However, people with summer homes in TLB and LB&SP might have voted in the electoral division of their primary residence.

68. In TLB, because some households had registered more than one email address, the number of households that received the survey is lower than the number of surveys sent. The survey reached 308 households in TLB.

Finally, in the third phase of the Study, results were validated in a third community in April and May 2013. Similarly to the first two communities, Delta Beach is located on the shore of Lake Manitoba and is mainly composed of homeowners and cottage owners. Results from past provincial elections indicate that the population of Delta Beach is closely divided between conservative and liberal views.⁶⁹

Delta Beach respondents were also recruited via an email distributed by a local association. A link to the survey questionnaire was also posted on the website of the association. The online questionnaire was exactly the same as the one used in the first two communities. Unlike the other two communities, however, it has not been possible for the association to send a follow-up email.

B. Survey Respondents

In TLB and LB&SP, 196 respondents completed the questionnaire,⁷⁰ representing a response rate of 42%.⁷¹ This response rate is relatively high compared to other web-based surveys⁷² and similar studies on the 9/11 VCF.⁷³ The targeted population was successfully reached since all respondents indicated that they suffered damage as a result of the 2011 floods,⁷⁴ and 98% responded that this damage occurred primarily in TLB or LB&SP. After removing the four surveys from residents of communities other than TLB or LB&SP, there were a total of 192 useable survey responses.

69. Residents of Delta Beach voted in Portage La Prairie. In 2011, the Conservative Party obtained 52% of votes, the New Democratic Party 43.1%, and the Liberal Party 8.4%. In 2007, the Conservative Party obtained 48.1% of votes, the New Democratic Party 42.2%, and the Liberal Party 9.3%. See *Summary of Votes Received*, ELECTIONS MANITOBA (2007), *supra* note 67 at “Portage La Prairie / Portage-la-Prairie”; *Summary of Votes Received*, ELECTIONS MANITOBA (2011), *supra* note 67 (Select “Portage La Prairie / Portage-la-Prairie”).

70. Because of the sensitivity of the question topics, participants were allowed to skip questions. Therefore, partially completed surveys were included when 75% or more of the questionnaire was completed.

71. The response rate was 40% (138) in TLB and 52% (54) in LB&SP. The response rate is lower in TLB because of the low number of responses to the questionnaire sent by regular mail (5 out of 25).

72. A response rate of 20% or less is not infrequent for web-based surveys. See Dorine Andrews et al., *Electronic Survey Methodology: A Case Study in Reaching Hard to Involve Internet Users*, 16 INT’L J. HUM.-COMPUTER INTERACTION 185, 191 (2003).

73. See Bornstein & Poser, *supra* note 9, at 87 (response rate of 25.5%); see also Hadfield, *supra* note 9, at 651 (unknown response rate).

74. Three participants indicated they had not suffered any damage, but their questionnaires were excluded because they were incomplete.

The Appendix displays demographic characteristics of the respondent population. Most of the respondents were cottage owners (77%), their most frequent household income was CAN\$40,000 to CAN\$59,999 (19%), and there were, on average, 2.67 individuals per household. However, as the research protocol was designed so that one person per household—most likely the household head—completed the survey, personal characteristics of respondents do not align with characteristics of general population. Most of the participants were male (59%). Respondents were between 28 and 100 years old, with a median age at 58.5.⁷⁵ Their employment rate—50%—was lower than population's employment rate in TLB's and LB&SP's rural municipality. A little less than half of the respondents (43%) were retired.

In the validation community, thirty-eight respondents completed the questionnaire. The total number of people to whom the survey was sent is unknown and therefore, it is impossible to determine the response rate. Because Delta Beach is said to consist of about 200 households,⁷⁶ the response rate may be around 19%. As shown in the Appendix, respondents in Delta Beach are comparable to those in the first two communities.

Overall, the respondents were representative of the population of the three target communities. Although self-selection bias is a limitation of any survey research, my recruitment method appears to have selected individuals with a broad range of opinions and background, and not only those unsatisfied with compensation. Indeed, responses show a variety of opinions with regards to the procedural and distributive justice of the compensation programs. Also, the respondent population evidences substantial representation of both activists and non-activists.⁷⁷

C. Materials

The content of the questionnaire was developed after reviewing the relevant legislation and literature, and conducting preliminary

75. Statistic Canada 2012 census indicates that the median age of the population is forty-six years old in the rural municipality of Coldwell (to which LB&SP pertains) and 48.4 years old in the rural municipality of St-Laurent (to which TLB pertains).

76. See DELTA BEACH, <http://deltabeach.wordpress.com/about/> (last visited Feb. 27, 2013).

77. See Appendix for details. No statistically significant differences were detected in the responses of activists and non-activists.

interviews. It also built on similar research studies done in the context of the 9/11 VCF.⁷⁸ It was pilot-tested on Master of Laws degree students from Stanford Law School before being sent to participants.

The questionnaire consisted of fifty-five questions, with a few open-ended, but mostly closed-ended questions. It included questions regarding: 1) type of damage suffered, 2) claim filed with government compensation programs, 3) perceived fairness of the process, 4) perceived fairness of the outcome of government compensation programs, 5) attribution of cause and responsibility, and 6) demographic characteristics.

The survey was structured with a branching function, which automatically directed respondents to the next question that is relevant to their reported experience, based on a pre-defined scheme. Respondents could skip a question or select the option “I don’t know” when they did not recall the information. Respondents who skipped a question or chose “I don’t know” were excluded from the analysis for that particular section. Thus, although the total number of respondents was 192 in the two main communities, the number of respondents (“N”) is smaller for some questions.

IV. RESEARCH FINDINGS

In this Part, I will present selected background data on the respondents in Part IV.A, and their perceptions of justice towards the government compensation programs in Part IV.B. Overlapping these two sets of data, I will then show which factors influence respondents’ justice judgments in Part IV.C. Finally, in Part IV.D I will briefly present the validation results.

A. Background Data on Respondents

1. Damage Suffered

Respondents were asked to indicate the type and severity of damage their household suffered as a result of the floods. Most respondents reported damage to property (98%), emotional and psychological pain and suffering (98%), damage due to clean up measures (96%), and damage related to temporary mitigation

78. See Bornstein & Poser, *supra* note 9, at 91-92. See generally Hadfield, *supra* note 9; Hensler, *supra* note 9.

measures (88%). As Figure 1 shows, these four categories of damage were also the ones for which reported severity was the highest. Seventy-four percent of respondents indicated that they are still suffering from some kind of damage, the most frequent being damage to property, emotional and psychological pain, and costs of clean up measures.

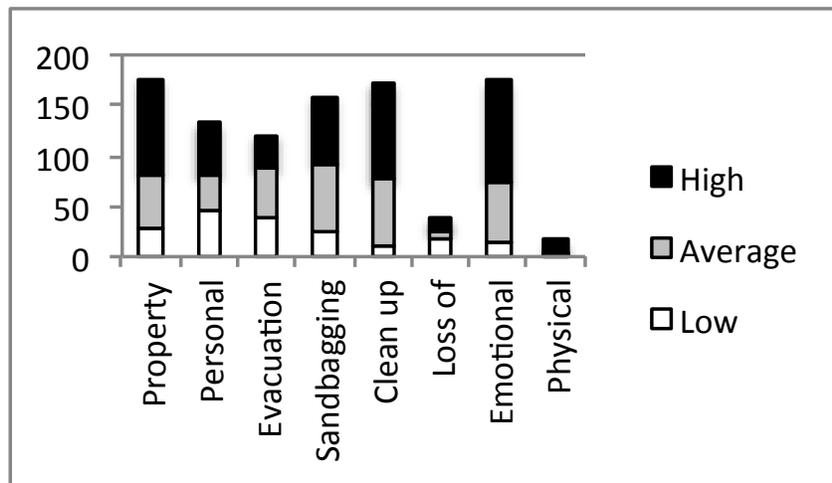


Figure 1 – Severity of Reported Damage by Type

2. Expectations Regarding Application with Government Program(s)

All but three respondents reported having filed an application for compensation with one of the government compensation programs.⁷⁹ Respondents' expectations regarding their application were numerous, and included both monetary and non-monetary objectives. As Table 1 indicates, the most frequent expectation was monetary compensation, but it was closely followed by a search for accountability, changes, and prevention.

⁷⁹ Ninety-three percent (170) of the respondents said they had filed an application with the Lake Manitoba FAP, and 28% (51) with the Disaster Financial Assistance Program. Due to the extreme complexity of the different programs, respondents' reports of the program(s) with which they filed an application may not always be accurate.

TYPE OF OBJECTIVES	ITEMS	% OF RESPONSES
Monetary	Buy-out of property I wanted the government to buy my property.	12% (22)
	Monetary Compensation I wanted to obtain money to compensate for damage suffered.	85% (156)
Non-monetary	Changes and Prevention I wanted to help change things and prevent this from happening again.	72% (132)
	Retribution I wanted those who caused or contributed to the damage(s) suffered to pay for what they did.	63% (115)
	Accountability I wanted those who caused or contributed to the damage(s) suffered to be held accountable.	80% (147)
	Acknowledgment I wanted to obtain a decision acknowledging the damage I suffered.	61% (114)
	Be heard I wanted a chance to have someone else hear what happened to me.	34% (63)
Other	None I did not have specific hope.	4% (7)

Table 1 – Respondents’ Objectives in Filing a Claim with a Government Compensation Program (N = 184)

3. Compensation

Participants were asked to indicate how much money they had received as a result of their application by checking one of several possible ranges. There was a broad range of compensation reported, with a mode and a median between CAN\$10,000 and CAN\$49,999 (Table 2). Because the compensation programs were still underway at the time of the survey, 49% of respondents indicated they were still expecting to receive money as a result of their application(s), while 28% did not, and 22% replied they did not know.

RANGE*	% OF RESPONDENTS
Zero	6% (11)
\$1 to \$4,999	14% (26)

RANGE*	% OF RESPONDENTS
\$5,000 to \$9,999	24% (43)
\$10,000 to \$49,999	32% (58)
\$50,000 to \$99,999	17% (31)
\$100,000 to \$199,999	6% (10)
\$200,000 to \$299,999	1% (2)
\$300,000 or more	0% (0)

Table 2 – Amount of Money Received from Compensation Programs
(N=181)

* in Canadian dollars

4. Attribution

The survey investigated attribution of cause by asking respondents to allocate 100 points among twelve factors, persons, and organizations, presented in a randomized order.⁸⁰ This list was generated from the nine preliminary interviews. The requirement that the total points allocated sum to 100 was enforced by the online survey mechanism. Respondents were then given the opportunity to rate how much they thought someone was at fault. Those who indicated “somewhat” or “completely” were then asked to indicate who they thought was most at fault. These three questions were placed near the end of the survey, after questions on distributive and procedural justice, to avoid the possibility that reflecting on attribution and blame biased responses would lead respondents to be more critical towards the compensation programs.

As Table 3 shows, over 75% of respondents thought the government of Manitoba was the main cause of their losses. Only 4.4% of respondents did not attribute any points to the government of Manitoba. On average, respondents distributed 73.62 points, out of 100, to the government of Manitoba.

Natural forces came next, with an average of 7.66 distributed points. An average of 7.39 points were distributed to the answer “some equipment,” which thirty-six respondents out of thirty-eight indicated referred either to the Portage Diversion—controlling inflow of water in Lake Manitoba, the Fairford Dam—controlling outflow of water from Lake Manitoba, or the inadequate outlet to offset inflow of water in Lake Manitoba. Because the government controlled these

80. The structure of this question was taken from the survey of Hadfield. Hadfield, *supra* note 9, at 655-56.

structures, these answers could be seen as additional attribution of cause to the government.

As to attribution of responsibility, 87% of respondents thought their losses were somewhat or completely the result of someone else's fault, and 95% of them identified the government of Manitoba as the organization or person who was most at fault.

Respondents were given a chance to comment on their responses about attribution. Most of the comments pointed to the diversion of water into Lake Manitoba and the inadequate outlet of water from the lake. Many respondents also referred to the strategic choices made by the government. An example of such comment is: "Government chose to sacrifice our beach to save other areas from flooding. They just need to own up to their decision." Interestingly, most of these comments did not criticize the choice as the wrong one, but highlighted the consequences this decision must have on justice issues. For example, one respondent wrote:

[I]t was a choice between saving the City of Winnipeg tens of billions of dollars or destroying all of Lake Manitoba's stakeholders investments. Most of the Lake Manitoba's stakeholders understand that What we do not understand is why we are fed to the bureaucratic dogs when trying to return and rebuild our homes our places to what we had at pre-flood times.

Similarly, another respondent wrote: "I truly understand that decision, of sacrifice [sic] some to save many, but in an instance where this occurs, they should stand up and admit that they did this and compensate the individuals who suffered due to that decision."

FACTORS, PERSONS, OR ORGANIZATIONS	MEAN	STANDARD DEVIATION	MEDIAN	25 TH PERCENTILE	75 TH PERCENTILE
Natural forces	7.66	11.38	0	0	10
Myself or someone from my household	0	0	0	0	0
Government of the province of Manitoba	73.62	27.80	80	50	100
Federal Government of Canada	2.62	8.08	0	0	0

FACTORS, PERSONS, OR ORGANIZATIONS	MEAN	STANDARD DEVIATION	MEDIAN	25 TH PERCENTILE	75 TH PERCENTILE
Bad luck	0.50	2.19	0	0	0
Government of a community or rural municipality	2.51	10.95	0	0	0
Another Canadian province	4.52	9.27	0	0	5
The United States	0.42	2.69	0	0	0
Other residents in the area	0.03	0.37	0	0	0
Some equipment	7.39	19	0	0	0
Other	1.86	9.86	0	0	0
No one/Nothing	0	0	0	0	0

Table 3 – Attribution of Cause*B. Respondents' Perceptions of Justice*

Procedural and distributive justice were investigated by asking respondents to rate the fairness or unfairness of various statements on a 5-point-Linkert scale. There were eight statements related to procedural justice, three statements related to distributive justice, and eight statements about respondents' distributive preferences. Some statements were worded positively—"I participated to the extent that I desired in the process"—and others were reversed—"The people who determined the compensation were biased"—to prevent response bias. Similarly, the order of statements was randomized by the online survey mechanism.

Table 4 shows the results of items related to perception of procedural justice. Although respondents were overall a little more dissatisfied than satisfied with the procedure, perceptions of procedural justice were generally distributed along the spectrum.⁸¹ A majority of respondents expressed dissatisfaction with the delays, the understandability of the outcome, and the standing that was given to

81. Respondents' perceptions of procedural justice were normally distributed.

them. On the other hand, a majority of respondents' attitudes were positive with respect to their degree of participation and their interactions with the facility. Also, respondents' perceptions were almost evenly divided between positive and negative with regard to trust in the decision-makers.

ITEMS ($\alpha = 0.801$) ⁸²	MEAN**	STANDARD DEVIATION	PERCENTAGE OF RESPONSES		
			DISAGREE***	NEUTRAL	AGREE***
Participation (N=171) I participated to the extent that I desired in the process.	3.3	1.2	27.5% (47)	18.7% (32)	53.8% (92)
Delay (N=176) It took a reasonable amount of time to resolve my claim.*	2.0	1.2	69.3% (122)	16.5% (29)	14.2% (25)
Trust in decision-makers (N=156) The people who determined the compensation were trustworthy.	2.8	1.0	32.7% (51)	45.6% (68)	25% (39)
Standing (N=168) The people who determined the compensation considered my views.	2.5	1.2	55.4% (93)	15.5% (26)	29.2% (49)
Outcome understandable I can understand how the amount of compensation was determined.* (N=179)	2.2	1.1	68.2% (122)	16.8% (30)	15.1% (27)
Neutrality (N=156) The people who determined the compensation were unbiased.*	2.5	1.0	46.2% (72)	39.7% (62)	13.5% (21)
Relational concerns (N=181) Representatives of the compensation program treated me with respect and dignity.	3.4	1.1	23.2% (42)	17.1% (31)	59.7% (108)

82. Cronbach's alpha value is a measure of the internal consistency reliability of the scale. Cronbach's alpha values above 0.7 are considered acceptable, but those above 0.8 are considered preferable. With a scale with fewer than ten items, it is common to find a low Cronbach's alpha value, and it may be more appropriate to report the mean inter-item correlation. See Stephen R. Briggs & Jonathan M. Cheek, *The Role of Factor Analysis in the Development and Evaluation of Personality Scales*, 54 J. PERSONALITY 106, 114-15 (1986). For the procedural justice scale, the mean inter-item correlation is 0.346, with values ranging from 0.147 to 0.713, which suggests a relationship among the items.

ITEMS ($\alpha = 0.801$) ⁸²	MEAN**	STANDARD DEVIATION	PERCENTAGE OF RESPONSES		
			DISAGREE***	NEUTRAL	AGREE***
Form understandable (N=180) The forms that I need to fill out were easy to understand.	2.6	1.2	48.9% (88)	17.2% (31)	33.9% (61)

Table 4 – Perceived Procedural Justice, by Item

* These statements were phrased in the negative form in the questionnaire.

** Responses were coded as follows: “Strongly Disagree” (1), “Disagree” (2), “Neither Agree nor Disagree” (3), “Agree” (4), “Strongly Agree” (5).

*** “Agree” percentages combine “Strongly Agree” and “Agree” responses. “Disagree” percentages combine “Strongly disagree” and “Disagree” responses.

The trend is clearer with perceptions of distributive justice (Table 5).⁸³ A majority of respondents thought that they received unfair compensation, both in absolute terms and compared to what others received. A majority of them also thought the criteria used by the compensation programs to assess the value of the damaged property were unfair.

ITEMS ($\alpha = 0.877$) ⁸⁴	MEAN*	STANDARD DEVIATION	PERCENTAGE OF RESPONSES		
			UNFAIR**	NEUTRAL	FAIR**
Absolute compensation (N=176) The amount of compensation provided to me.	2.2	1.3	68.2% (120)	6.3% (11)	25.6% (45)
Relative compensation (N=133) The amount of compensation provided to me as compared to what others received.	2.3	1.2	53.4% (71)	32.3% (43)	14.3% (19)
Criteria (N=171) The criteria used to assess the value of damages incurred.	2.0	1.2	71.3% (122)	7.6% (13)	21% (36)

Table 5 – Perceived Distributive Justice

83. Respondents' perceptions of distributive justice were normally distributed.

84. The mean inter-item correlation is 0.703, with values ranging from 0.633 to 0.794.

* Responses were coded as follows: “Strongly Disagree” (1), “Disagree” (2), “Neither Agree nor Disagree” (3), “Agree” (4), “Strongly Agree” (5).

** “Fair” percentages combine “Very fair” and “Somewhat fair” responses.
“Unfair” percentages combine “Very unfair” and “Somewhat unfair” responses.

Distributive and procedural justice scores⁸⁵ correlate together in a statistically significant way (Spearman coefficient: 0.697, p-value <0.005). In other words, respondents who thought the procedure was unfair were more likely to also think the outcome was unfair. This result is consistent with the many studies indicating that perceptions of procedure impact perceptions of outcome, and maybe to a lesser extent, vice-versa.⁸⁶

Respondents’ preferences for distributive principles were also investigated. Respondents were given a list of suggested rules for compensating victims of the 2011 floods and were asked to indicate how fair they thought each rule was.⁸⁷ Each statement was associated with one distributive principle: equality, merit, need, or tort. As Figure 2 illustrates, only for statements associated with tort distribution did more respondents think it was fair or extremely fair rather than neutral, unfair, or extremely unfair.

85. See *infra* Table 7 and accompanying text.

86. See Hegvedt & Cook, *supra* note 57, at 96; Tyler & Lind, *supra* note 45, at 70-71.

87. The statements were: “All victims receive the same amount of compensation regardless of their damage” (equality); “Damage to luxurious or non-essential items is eligible to compensation” (statement reversed, need 1); “Compensation’s goal is to guarantee that the basic needs of claimants are met” (need 2); “Only those suffering flood damages who cannot, on their own, afford the cost of renovation, restoration, and repair can receive compensation” (need 3); “Lower or no compensation is provided to those who live in areas that are known to be at risk of being flooded” (merit 1); “Lower or no compensation is provided to those who had not taken appropriate measures to mitigate flood risks and flood damages” (merit 2); “Compensation covers all types of damage, including psychological and emotional pain” (tort 1); “The amount of compensation equals the total cost of all damages” (tort 2). The responses to each statement correlate with the responses to the other statement(s) within the same category (equality, merit, need, tort). For example, the two tort statements correlate strongly together (Spearman coefficient: 0.635, p<0.0005). However, the different categories are not exclusive of one another, and they cannot be combined to form a scale. For example, high preference for the tort principle does not significantly correlate with low preference for the equality principle.

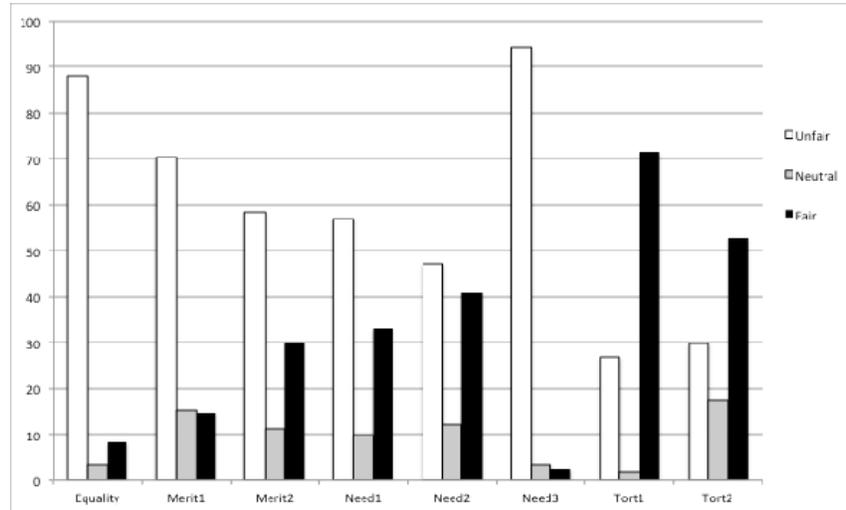


Figure 2 – Respondents' Distributive Preferences

* “Fair” percentages combine “Very fair” and “Somewhat fair” responses.

“Unfair” percentages combine “Very unfair” and “Somewhat unfair” responses.

Preference for tort distribution does not correlate with any of the variables associated with perceptions of procedural and distributive justice (Table 6). Only the level of education and desire for accountability correlated with preference for distribution based on tort principles.

CONTINUOUS VARIABLES	PREFERENCE FOR TORTS*	
	SPEARMAN CORRELATION	P-VALUE
Severity of damage**	0.018	0.835
Amount of compensation	0.061	0.454
Attribution of cause to government of Manitoba	-0.025	0.758
Attribution of cause to natural forces	0.086	0.285
Attribution of cause to some equipment	0.102	0.206
Views regarding responsibility for disaster assistance	-0.071	0.387
Age	-0.097	0.238
Annual income	0.036	0.678
Level of education	0.184	0.025

CONTINUOUS VARIABLES	PREFERENCE FOR TORTS*	
	SPEARMAN CORRELATION	P-VALUE
Household size	0.032	0.694
Level of activism***	-0.079	0.334

DICHOTOMOUS FACTORS		ODDS RATIO (95%CI)	P-VALUE
Compensation program with which application was filed	DFA	0.67 (0.33-1.35)	0.258
	Lake Manitoba FAP	NA****	NA****
Persistence of damage		0.87 (0.40-1.87)	0.714
Respondents expecting more compensation		0.81 (0.38-1.75)	0.590
Expectations at the time of filing the application	Receive money	1.57 (0.65-3.77)	0.314
	Buy-out	1.02 (0.40-2.59)	0.971
	Be heard	0.82 (0.42-1.60)	0.558
	Retribution	0.76 (0.39-1.50)	0.433
	Acknowledgment	1.22 (0.63-2.38)	0.558
	Accountability	0.35 (0.13-0.90)	0.025
	Prevention	2.08 (0.99-4.36)	0.051
Attribution of fault****		0.509 (0.16-1.65)	0.253
Male Gender		1.026 (0.52-2.12)	0.940
Employment status	Working (full-time or part-time)	1.18 (0.53-2.61)	0.68
	Retired	1.05 (0.47-2.33)	0.90

Table 6 – Bivariate Analysis for Preference for Torts

* The preference for torts refers to the score for torts. Respondents' ratings of tort statements were coded as follows: "very unfair" (1), "unfair" (2), "neither fair nor unfair" (3), "fair" (4), and "very fair" (5). The score for torts was obtained by combining respondents' coded answer on the two statements related to torts. The score was transformed into a dichotomic variable: Scores of 6 and below were coded as "no preference for tort principle," and scores of 7 and above were coded "yes, preference for tort principle."

** Severity of damage refers to the score of damage severity. Respondents' ratings of each of the 8 categories of damage were coded "None" (1), "Low" (2), "Average" (3), and "High" (4). Each respondent's coded answers were added together to obtain a score of damage severity, ranging from 8 to 32.

*** Level of activism: Responses were coded not active (0), participant (1), organizer (2), speaker (3), and activist (4). See Appendix for details of coding.

**** All considered respondents indicated that they filed an application with the Lake Manitoba FAP, therefore no odds ratio or chi-square was calculated.

***** Attribution of fault refers to whether respondents indicated they thought their loss was theirs or someone else's fault. "Yes" combines responses "Somewhat" and "Completely." "No" incorporates the response "Not at all."

C. Factors Influencing Justice Judgments

These results lead us to the main inquiry of this Paper: What factors influenced respondents' justice judgments? First, among all the variables measured in the survey, I identified several that correlated with perceptions of procedural and distributive justice in bivariate analyses. As Table 7 shows, six variables correlated with perception of procedural justice, perception of distributive justice, or both. These variables were:

Damage suffered (severity of damage and persistence of damage),

Compensation received (amount of award and future expected compensation),

Attribution of cause,

Views regarding responsibility for disaster assistance,

Filing an application with the DFA,⁸⁸ and

Having some type of expectation.

88. Due to the extreme complexity of the different compensation programs, there is a risk that respondents' reports of the program(s) with which they filed an application were not always accurate.

CONTINUOUS VARIABLES	PROCEDURAL JUSTICE*		DISTRIBUTIVE JUSTICE**	
	SPEARMAN CORRELATION	P-VALUE	SPEARMAN CORRELATION	P-VALUE
Severity of damage***	-0.545	< 0.0005	-0.471	< 0.0005
Amount of compensation	-0.211	0.02	-0.161	0.07
Attribution of cause to government of Manitoba	-0.282	0.001	-0.214	0.02
Attribution of cause to natural forces	0.403	< 0.0005	0.397	< 0.0005
Attribution of cause to some equipment	-0.052	0.56	-0.067	0.46
Views regarding responsibility for disaster assistance	0.14	0.12	0.27	0.003
Age	-0.01	0.91	0.109	0.83
Annual income	0.158	0.10	0.114	0.24
Level of education	0.04	0.65	-0.024	0.80
Household size	0.044	0.63	0.087	0.34
Level of activism***	-0.026	0.77	-0.029	0.75

DICHOTOMOUS VARIABLES		ODDS RATIO (95%CI)	P-VALUE	ODDS RATIO (95%CI)	P-VALUE
Compensation program with which application was filed	DFA	0.33 (0.12-0.94)	0.03	0.60 (0.22-1.63)	0.31
	Lake Manitoba FAP	1.06 (0.20-5.49)	0.95	NA****	0.12
Persistence of damage		0.13 (-0.05-0.32)	< 0.0005	0.30 (0.12-0.76)	0.009
Respondents expecting more compensation		4.16 (1.62-10.69)	0.002	2.64 (1.01-6.92)	0.04

DICHOTOMOUS VARIABLES		ODDS RATIO (95%CI)	P-VALUE	ODDS RATIO (95%CI)	P-VALUE
Expectations at the time of filing the application	Receive money	0.90 (0.30-2.74)	0.85	0.59 (0.19-1.85)	0.36
	Buy-out	0.27 (0.60-1.25)	0.08	0.80 (0.73-0.88)	0.02
	Be heard	0.23 (0.08-0.63)	0.003	0.12 (0.03-0.55)	0.002
	Retribution	0.43 (0.19-0.95)	0.04	0.34 (0.14-0.84)	0.02
	Acknowledgment	0.36 (0.16-0.81)	0.01	0.14 (0.05-0.38)	<0.0005
	Accountability	0.30 (0.12-0.76)	0.008	0.20 (0.08-0.53)	0.001
	Prevention	1.25 (0.51-3.11)	0.63	0.98 (0.37-2.62)	0.97
Attribution of fault ^{***}		2.34 (0.49-11.07)	0.273	1.77 (0.37-8.41)	0.47
Male Gender		1.21 (0.54-2.69)	0.65	0.87 (0.35-2.18)	0.77
Employment status	Working (full-time or part-time)	1.18 (0.53-2.61)	0.68	1.27 (0.53-3.07)	0.59
	Retired	1.05 (0.47-2.33)	0.90	0.65 (0.26-1.65)	0.36

Table 7 – Bivariate Analysis for Perceptions of Procedural and Distributive Justice

* Perceived procedural justice refers to the score of procedural justice. Respondents' answers to each procedural justice item were coded as follows: "Strongly Disagree" (1), "Disagree" (2), "Neither Agree nor Disagree" (3), "Agree" (4), and "Strongly Agree" (5). Each respondent's coded answers were added together to obtain a score of procedural justice. Scores from 8 to 24 were

coded as not satisfied, and those higher than 24 were coded as satisfied. Scores below 8—that is, for respondents who did not respond to each item of procedural justice—were excluded.

** Perceived distributive justice refers to the score of distributive justice. Respondents' answers to each distributive justice item were coded as follows: "Strongly Disagree" (1), "Disagree" (2), "Neither Agree nor Disagree" (3), "Agree" (4), and "Strongly Agree" (5). Each respondent's coded answers were added together to obtain a score of distributive justice. Scores from 3 to 9 were coded as not satisfied, and those higher than 9 were coded as satisfied. Scores below 3—that is, for respondents who did not respond to each item of distributive justice—were excluded.

*** See *supra* Table 6 and accompanying text.

**** All considered respondents indicated that they filed an application with the Lake Manitoba FAP.

All variables associated with procedural justice or distributive justice in bivariate analyses were then analyzed through multiple regression.⁸⁹

Results show that only severity of damage, persistence of damage, and attribution of cause to natural forces were independently associated with perceived procedural justice in a statistically significant way (Table 8).⁹⁰ In other words, the association that was first found with the other factors was secondary to the association with these three variables. The r-square of this model was 0.478,

89. See BARBARA G. TABACHNICK & LINDA S. FIDELL, USING MULTIVARIATE STATISTICS 113 (5th ed. 2007). Multiple regression requires a large sample, no outliers, no multicollinearity, and normality. As to the size of the sample, Tabachnick and Fidell recommend $N > 50 + 8m$ where "m" is the number of independent variables. Since thirteen independent variables are used here, the minimum would be 154 cases. The size of my respondent population is therefore sufficient. Tabachnick and Fidell define outliers as cases that have a standardized residual (as displayed in the scatterplot) of more than 3.0 or less than -3.0. None of these were identified for procedural justice and one was identified for distributive justice with a residual value of 3.565. This case did not have an undue influence on the results for the model as a whole, as the maximum value for Cook's distance was 0.075. According to Tabachnick and Fidell, cases with a maximum Cook's value above 1 can be a problem. See *id.* Normality was confirmed in a normal probability plot. As to multicollinearity, Julie Pallant recommends not to include independent variables with a bivariate correlation of 0.7 or more in the same analysis. See JULIE PALLANT, SPSS SURVIVAL MANUAL 158 (4th ed. 2010). None of the 13 variables assessed were that highly correlated.

90. There was no correlation with attribution of blame to government of Manitoba. The very high number of respondents who attributed fault to the government may in part explain this. Only 13% (14) of the respondents thought their losses were nobody's fault, and among respondents who blamed someone, 95% blamed the government of Manitoba.

meaning that this model explains 47.8% of the respondents' perceived procedural justice. Severity of damage explains 9% of perceived procedural justice, persistence of damage 2.89%, and attribution to natural forces 4%.⁹¹

Similar multivariate analysis for perceived distributive justice shows that only severity of damage, attribution of cause to natural forces, and expectations of buy-out statistically significantly correlated with perception of distributive justice. The model explains 51.1% of perceived distributive justice (r-square = 0.511). Severity of damage explains 6.76%, attribution to natural forces 8.41%, and expectations of buy-out 2.89% of perceptions of distributive fairness.

I inquired a little further on the severity of damage factor. Breaking down the eight categories of damage into material and non-material damages, severity of damage for both types correlated together (Spearman coefficient: 0.529, $p < 0.0005$). Therefore, the more severely respondents evaluated their material damages, the more likely they were to evaluate their non-material damages as severe. However, in linear regression, only severity of *material* damage is statistically significantly associated with the perceived procedural and distributive justice.⁹² It is, then, respondents' evaluation of their material damage that influences whether they think the compensation program is just or not.

VARIABLES	PROCEDURAL JUSTICE*			DISTRIBUTIVE JUSTICE*		
	STANDARDIZED COEFFICIENT (BETA)	P-VALUE	CORRELATION PART	STANDARDIZED COEFFICIENT (BETA)	P-VALUE	CORRELATION PART
Severity of damage**	-0.376	<0.0005	-0.3	-0.325	0.001	-0.26
Persistence of damage	-0.20	0.032	0.17	-0.10	0.25	0.09
Amount of compensation	0.045	0.596	0.04	0.10	0.23	0.09
Respondents expecting more compensation	0.098	0.241	0.09	0.07	0.367	0.07

91. These percentages correspond to the squared correlation part for each variable. The sum of these parts does not equal the r-square value of the model because they represent only the unique contribution of each variable to the model, with any overlap or shared variance removed.

92. For perceived procedural justice: (a) Severity of material damages: standardized coefficient (beta): -0.559, $p < 0.0005$. (b) Severity of non-material damages: standardized coefficient (beta): -0.005, $p = 0.96$.

For perceived distributive justice: (a) Severity of material damages: standardized coefficient (beta): -0.433, $p < 0.0005$. (b) Severity of non-material damages: standardized coefficient (beta): -0.098, $p = 0.328$.

VARIABLES	PROCEDURAL JUSTICE*			DISTRIBUTIVE JUSTICE*			
	STANDARDIZED COEFFICIENT (BETA)	P-VALUE	CORRELATION PART	STANDARDIZED COEFFICIENT (BETA)	P-VALUE	CORRELATION PART	
Filing an application with the DFA	NA	NA	NA	Not associated in bivariate analysis			
Attribution of cause to government of Manitoba	-0.08	0.355	-0.07	-0.019	0.825	-0.016	
Attribution of cause to natural forces	0.240	0.01	0.20	0.34	<0.0005	0.29	
Views regarding responsibility for disaster assistance	Not associated in bivariate analysis			0.06	0.49	-0.05	
Expectations	Be heard	-0.93	0.30	-0.08	-0.06	0.48	-0.05
	Retribution	-0.10	0.288	-0.08	0.05	0.60	0.04
	Acknowledgment	0.02	0.86	0.14	-0.13	0.16	-0.11
	Accountability	-0.10	0.32	-0.77	-0.10	0.30	-0.08
	Buy out	Not associated in bivariate analysis			-0.18	0.03	-0.17

Table 8 – Multivariate Analysis for Perceived Procedural and Distributive Justice

* See *supra* Table 7 and accompanying text.

** See *supra* Table 6 and accompanying text.

D. Validation of Results

The number of respondents in Delta Beach was too small to analyze the results through multiple regressions.⁹³ I therefore investigated associations between variables and perceptions of justice using only bivariate analyses.

Interestingly, three of the four variables that were independently associated with perceptions of justice in the first two communities were also associated with perceptions of justice in the community of validation. As mentioned before, multivariate analysis indicated the following variables were statistically correlated with perceptions of justice in TLB and LB&SP: 1) severity of damage; 2) persistence of damage—for procedural justice only; 3) attribution of cause to natural

93. As mentioned before, multiple regression requires a large sample. Tabachnick and Fidell recommend $N > 50 + 8m$ where “m” is the amount of independent variables. Since 13 independent variables are used here, the minimum would be 154 cases. In the community of validation, $N = 38$ and is therefore too small. See TABACHNICK & FIDELL, *supra* note 89, at 113.

forces; and 4) expectations of buy-out—for distributive justice only. The association with the first three variables was confirmed in the community of validation.

Indeed, in Delta Beach, bivariate analysis revealed a statistically significant association between perceptions of justice and 1) severity of damage; 2) persistence of damage—for perceived procedural justice only; and 3) attribution of cause to natural forces—for distributive justice only (Table 9).⁹⁴

The fact that with only thirty-eight respondents I was able to confirm the associations between perceptions of justice and three variables—severity of damage, persistence of damage, and attribution of cause to natural forces—shows that these associations are robust.

CONTINUOUS VARIABLES	PROCEDURAL JUSTICE*		DISTRIBUTIVE JUSTICE*	
	SPEARMAN CORRELATION	P-VALUE	SPEARMAN CORRELATION	P-VALUE
Severity of damage**	-0.641	<0.0005	-0.723	<0.0005
Amount of compensation	-0.143	0.40	-0.126	0.49
Attribution of cause to government of Manitoba	-0.088	0.061	-0.008	0.97
Attribution of cause to natural forces	0.293	0.08	0.502	0.003
Views regarding responsibility for disaster assistance	0.228	0.19	0.062	0.74

DICHOTOMOUS VARIABLES		ODDS RATIO (95%CI)	P-VALUE	ODDS RATIO (95%CI)	P-VALUE
Compensation program with which application was filed	DFA	0.623 (0.132-2.95)	0.55	0.37 (0.06-2.19)	0.26

94. Although attribution of cause to natural forces was not significantly associated with procedural justice judgments due to the small number of respondents, results indicate a trend that the more respondents were attributing cause to natural causes, the more they were satisfied with procedural justice. Also, it has not been possible to confirm the association between distributive justice judgments and expectations of buy-out as only two respondents in Delta Beach indicated they hoped the government would buy their property.

Persistence of damage	0.04 (0.004- 0.36)	<0.005	0.32 (0.06- 1.64)	0.16
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DICHOTOMOUS VARIABLES		ODDS RATIO (95%CI)	P- VALUE	ODDS RATIO (95%CI)	P- VALUE
Respondents expecting more compensation		2.66 (0.47- 15.25)	0.26	4.92 (0.52- 47.07)	0.14
Expectations at the time of filing the application	Receive money	0.72 (0.06- 8.9)	0.80	0.36 (0.02- 6.53)	0.48
	Buy-out	0.93 (0.83- 1.03)	0.38	N/A	0.53
	Be heard	0.74 (0.59- 0.93)	0.07	0.35 (0.04- 3.46)	0.36
	Retribution	0.19 (0.04- 0.90)	0.03	0.17 (0.03- 0.92)	0.003
	Acknowledgment	0.11 (0.02- 0.61)	0.006	0.27 (0.05- 1.36)	0.10
	Accountability	0.19 (0.04- 0.90)	0.03	0.4 (0.09- 2.21)	0.31
	Prevention	0.28 (0.06- 1.27)	0.09	0.282 (0.06- 1.41)	0.12

Table 9 – Bivariate Analysis for Perceptions of Procedural and Distributive Justice (Delta Beach)

* See *supra* Table 7 and accompanying text.

** See *supra* Table 6 and accompanying text.

V. DISCUSSION

The overriding finding of this Study is that damage—severity and persistence—and attribution of cause influence victims' perceptions of the fairness of the government disaster compensation

programs, while other variables such as the amount of compensation do not.⁹⁵ I will take these two factors in turn to discuss the main implications of these findings.

A. Damage and Perceptions of Justice

Victims' perception of their damage impacts how fair they evaluated the process and the outcome of the government compensation programs to be.⁹⁶ The more severe respondents perceived their material damage to be—damage to property, cleanup costs, temporary mitigation measures, etc.—the more likely they were to judge procedural and distributive justice as low. In the same vein, respondents who were still suffering from damage at the time of the survey were more critical of the government compensation programs process.

Of course, there is no objective measure of harm with which to compare respondents' subjective evaluation of their damage. Still, I suspect that what is important for justice judgments is not harm as measured objectively, but rather harm as a subjective and social experience. Even though the respondents all went through the same disaster, they experienced it differently, and they remember it differently. It is how salient the harm was to each of them that seems to influence how they engaged in the compensation process and how they evaluated it afterwards.⁹⁷ An interpretation of the respondents'

95. I also found that expectation of buy-out was a determinant of distributive justice judgments, but this finding is very specific to the case studied. Since the compensation programs in the areas included in the study did not offer any buy-out, it seems that those who wanted the government to buy their property were more dissatisfied with the outcome of the compensation process simply because they did not obtain what they wanted.

96. Bornstein and Poser's finding on the 9/11 VCF might also suggest that perceived damage is a controlling factor for satisfaction with disaster programs created to compensate mostly immaterial loss. Indeed, they found that the claimant's relationship to the decedent (spouse/partner vs. parent vs. other) influenced their perception of both procedural and distributive justice. In many cases, it is reasonable to think that the claimant's relationship to the decedent also influenced how salient the damage, or suffering, was to them. *See* Bornstein & Poser, *supra* note 9, at 93-94.

97. Objective information about the procedure each respondent experienced—the delay, identity of programs agents involved in their case, type and frequency of contacts with programs agents, length of decision, etc.—could not be collected as part of this Study. Therefore, it was not possible to evaluate how much these variables are correlated with severity of damage and to what extent they explain justice judgments. Although I think the results show that justice has a different meaning for the victims interpreting their experience as more harmful, it remains a possibility that these victims did have an experience of the

personal harm as severe, and as more severe than others' personal harm, appears to have created higher expectations of what the compensation programs should deliver in terms of procedure and outcome.

These higher expectations were twofold: they wanted to have someone hear what happened to them, and they wanted to obtain a decision acknowledging the damage they suffered. Indeed, results show that those evaluating their damage as more severe were more likely than others to expect voicing and acknowledgment from the government compensation program(s) (Table 10).

VARIABLES		ODDS RATIO (95%CI)	P-VALUE
Expectations at the time of filing the application	Receive money	1.21 (0.51-2.87)	0.67
	Buy-out	2.20 (0.76-6.40)	0.14
	Be heard	2.38 (1.15-4.89)	0.02
	Retribution	1.11 (0.58-2.14)	0.76
	Acknowledgment	2.04 (1.05-3.94)	0.03
	Accountability	1.21 (0.55-2.65)	0.64
	Prevention	0.99 (0.49-2.01)	0.98

Table 10 – Correlation Between Damage and Expectations

Score of damage severity (*see supra* Table 6 and accompanying text) was transformed into a dichotomous variable. All scores between 10 and 19 points were coded (1), and all scores between 20 and 32 were coded (2).

These results confirm that it is insufficient to define disaster victims' expectations in terms of monetary interests. Respondents with more salient harms were dissatisfied with the procedure and outcome of the compensation programs not because they wanted more money. They were dissatisfied because the opportunities they had to voice their complaints and receive acknowledgement were insufficient for them. These findings support previous research

compensation process that was objectively different from those with less severe harms that could explain their differing justice judgments.

showing that claimants to disaster relief programs hope for more than money.⁹⁸ Adding to that, my results suggest that voicing and acknowledgment are of particular importance to those who consider themselves severely affected victims.

Is money irrelevant then? Some of these results open interesting areas of reflection on the role of money in compensating disaster victims. First, the amount of compensation received, as reported by victims, was *negatively* correlated with high justice judgments (Table 7). In other words, those getting more money were more dissatisfied with the process and the outcome of the compensation programs. How can this be explained? When controlling for the damage—severity and persistence, there was no longer a statistically significant association between the amount of compensation and justice judgments. This is important because it means that the association between the amount received and justice judgments was secondary to the association between damage and justice judgments. In other words, those who reported receiving higher amounts of compensation were more critical of government compensation programs *because they suffered more severe damage*. Otherwise, the amount of awards did not predict justice judgments in a statistically significant way.⁹⁹

98. Similarly, in her research on the 9/11 VCF, Hadfield found that 9/11 victims framed their choice between a VCF award and litigation as also being guided by non-monetary values such as obtaining information, accountability, and policy change. Hadfield, *supra* note 9, at 660-73; *see also* Tyler, *supra* note 52, at 203 (reporting the results of a study showing that if US asbestos victims were offered equal settlements through a quick arbitration or through a longer, drawn-out trial, many victims would choose the latter); KENNETH R. FEINBERG ET AL., FINAL REPORT OF THE SPECIAL MASTER FOR THE SEPTEMBER 11TH VICTIM COMPENSATION FUND OF 2001, at 111 (2004) (indicating that over 68% of claimants who filed a claim to the VCF for the death of a victim opted for the hearing process).

99. This finding seems to contradict Bornstein and Poser's conclusion that the more money claimants to the 9/11 VCF received, the more satisfied they were with distributive aspects of the fund. They also concluded that the amount of compensation was positively correlated with the satisfaction of procedure. However, the p-value for this association ($p < 0.08$) was higher than the minimum p-value (0.05) for statistically significant results. *See* Bornstein & Poser, *supra* note 9, at 93-94. In the case of the 9/11 VCF, however, compensation was heavily guided by tort principles. The statute required that the Special Master set compensation according to "the extent of harm to the claimant, including any economic and non-economic losses." *See* Air Transportation Safety and System Stabilization Act, 49 U.S.C. § 40101 (2001). Although the Special Master Kenneth Feinberg modified the distributive principles and abandoned some tort-inspired rules, this compensation fund remains one of the most, if not the most, generous in history. The average award was US\$2.08 million and the median was US\$1.7 million. *See* KENNETH R. FEINBERG, WHAT IS LIFE WORTH?: THE UNPRECEDENTED EFFORT TO COMPENSATE THE VICTIMS OF 9/11 202 (2005). The unprecedented generosity of the fund may explain why claimants receiving higher

Second, there likely is a link between the finding that harms influence perceptions of justice and the finding that a majority of respondents preferred a distribution based on tort principles.¹⁰⁰ It is important to note that the preference for tort principles I observed was not influenced in a statistically significant way by any variables—except for the level of education and expectations of accountability.¹⁰¹ The preference for tort principles was observed among victims reporting various levels of harms, amounts of compensation, satisfaction with procedural or distributive justice, and attributions of cause. A majority of those who suffered damage as a result of the floods—however salient this damage is to them—thought distribution based on equity—merit, equality, or need would be unfair. They wanted relief allocation based on tort principles.

This preference for tort principles likely reflects the importance of damages in forming justice judgments. The very basis of tort distribution is the damage suffered by the claimants. The tort system aims at making faultless plaintiffs “whole” by compensating the full measure of their losses. Compared to equity, equality, or need, tort principles are obviously the most generous distributive principles for the victims. However, as mentioned before, when controlling for the damage, the amount of money received is not significantly associated with perception of procedural and distributive fairness. Therefore, it does not seem that respondents preferred tort distribution because of a self-interested desire to maximize personal gain.

It is likely that tort distribution is the fairest in respondents’ view *because it is guided by a measurement of their damages*. In short, their justice judgments seem to have been influenced by the salience of their damage, and they therefore demanded a compensation distribution based on damage levels—that is, the tort principle. Because of various caps placed on material compensation, victims

compensation—despite presumably having suffered more severe damage—were more satisfied with the distribution. As many have stated, however, it is doubtful that such a generous fund will be created again in the future. Therefore, it is important to understand victims’ perception of justice towards more modest compensation programs, such as those set up to compensate victims of natural disasters.

100. The preference for tort distribution found in this research study is consistent with Hensler’s study on 9/11 victims’ survivors’ views of compensation. She also found that victims’ survivors—potential claimants to the VCF—preferred tort compensation before they even submitted their claim to the compensation fund. Hensler, *supra* note 9, at 439.

101. Level of education: Spearman correlation = 0.184, p-value = 0.025. Expectations of accountability: Odds ratio (95%CI) = 0.35 (0.13-0.90), p-value = 0.025. The preference for tort distribution refers to the score for torts. See *supra* Table 6 and accompanying text.

with higher reported damage were awarded a compensation that was more difficult to fit in a tort compensation model. Hence, they tended to be less satisfied with the outcome and the process of their compensation applications.

B. Attribution and Perceptions of Justice

Justice also appears to have a different meaning for those attributing cause to impersonal forces, as compared to those who thought the disaster was man-made. The more respondents thought their damage was a result of natural forces, the more likely they were to evaluate the process and outcome as fair.¹⁰²

The association between attribution of cause and perceived fairness of the *outcome* could be explained in two ways. First, it may be that the closer to the “man-made” end of the disaster spectrum people placed the floods, the fuller they expected to be compensated. This resonates with the comment of one respondent that “if the government intentionally causes the flood, the victims must be 100% compensated. If the flood is an act of nature, the government should be responsible for assistance, but not 100% compensation.” However, it must be remembered that preference for torts—that is, preference for full compensation—did not vary depending on respondents’ views of who caused their damage. So this explanation may not fully grasp the relationship between attribution to nature and perceived fairness of the outcome.

Another possibility, more plausible in my view, is that what links attribution of cause and perceived fairness of the outcome is a retributive justice judgment. As mentioned in the theoretical frameworks, satisfaction with the outcome can be both a distributive justice and a retributive justice judgment. Because, by definition, retributive judgments demand that someone be seen as violating a rule, respondents who thought natural forces played a more important role in the disaster had fewer retributive desires. Results indeed show that the more respondents attributed cause to natural forces, the less likely they were to report retributive expectations.¹⁰³ Therefore, what

102. I suspect that in a study of a disaster where views of attribution of responsibility are more diversified than was the case here, there would also be a correlation between the level of blame (attribution of fault) and justice judgments about the outcome.

103. There is a statistically significant negative correlation between attribution of cause to nature and expectation of retribution. Odds ratio (95%CI) = 0.52 (0.28-0.97), p-value = 0.039. Attribution of cause to nature was transformed into a dichotomous variable. All

these respondents thought was a satisfying award meeting their retributive urge was smaller compared to victims who saw the floods as the product of human conduct. Conversely, victims who thought the disaster was man-made were more likely to want those who caused their loss to pay for what they did. This possibly transposed into expectations of bigger awards, and, as a result, more dissatisfaction with the outcome.

The next puzzle is why those attributing cause to nature were also more satisfied with the *procedure*. Part of it may be that judgments about the outcome influenced judgments about the procedure. Still, there is probably more to it than that. Those who saw the floods more as an act of God felt less need to obtain an acknowledgement of accountability from someone. Or, inversely, those who thought the floods were the result of man's actions wanted those who caused their losses to be held accountable. Indeed, attribution of cause to natural forces, in addition to negatively correlating with expectations of retribution, also negatively correlated with expectations of accountability.¹⁰⁴

On this need for accountability, one respondent wrote:

This lack of acknowledgement on the government's part, and their phrasing of compensation as 'financial assistance' can give the impression that the government is being noble or unnecessarily kind, when in fact, they appear to be trying to get maximum credit, and minimal blame for the lowest price possible, and I find this to be a disgrace.

For those who thought the disaster was man-made, the lack of acknowledgement by those who were seen as responsible—mainly the Manitoban government—anchored these victims in a position of distrust. This likely impacted how fair they estimated the compensation process—a process run by the same institution they thought was the cause for their losses—to be.

responses attributing between 0 and 9 points to Natural forces were coded (1), and the rest were coded (2).

104. There is a statistically significant and negative correlation between attribution of cause to nature and expectation of accountability. Odds ratio (95%CI) = 0.45 (0.21-0.96), p-value = 0.04.

CONCLUSION

What is fair compensation for victims of disaster? This Study shows that, for a majority of victims, fairness does not equate with maximization of personal awards. Rather, it first means receiving a *compensation that aligns, both in process and outcome, with the damage suffered, as it is perceived and remembered*. Victims reporting severe and persistent damage expect more opportunities to voice their suffering and receive acknowledgment in return. Also a majority of victims preferred distribution of compensation awards based on tort principles, precisely because they are guided by a measurement of their damage.

Fairness, in the view of a majority of victims, also means *a process and an outcome that take into account whether nature or man caused their losses*. Victims perceiving the disaster as man-made rather than natural expect an award commensurate with their need for retribution and a process leaving space for accountability.

The most direct implication of this study is to help policy makers shape compensation programs in a way that improves their legitimacy and beneficiaries' acceptance of them. In this regard, the results offer support to those calling for process pluralism,¹⁰⁵ where compensation programs offer various claim evaluation options, each of them striking a different balance between administrative simplicity and cost efficiency on the one hand, and individualized analysis and full compensation on the other hand.¹⁰⁶ Indeed, as disaster victims' expectations vary depending on how they perceive their damage and what they think cause their losses, I suspect that rare will be the cases where one compensation recipe will satisfy them all. More often, as

105. See, e.g., Kenneth R. Feinberg, *The Dalkon Shield Claimants Trust*, 53 *LAW & CONTEMP. PROBS.* 79, 105 (1990); see also Linda S. Mullenix, *Mass Tort Funds and the Election of Remedies: The Need for Informed Consent*, 31 *REV. LITIG.* 833 (2012) (discussing the need for an intelligent, knowing, and informed consent prior to a claimant's electing relief from the compensation program).

106. See generally Diller, *supra* note 64, at 726-33 (comparing social welfare and tort regimes); Greenspan & Neuburger, *supra* note 43, at 116 (comparing the possibility of obtaining information through litigation and administrative programs); Deborah R. Hensler, *A Glass Half Full, A Glass Half Empty: The Use of Alternative Dispute Resolution in Mass Personal Injury Litigation*, 73 *TEX. L. REV.* 1587, 1616 (1995) (explaining that claims facilities can be merely administrative payment schemes or "individualized dispute resolution procedures"); Mark A. Peterson, *Giving Away Money: Comparative Comments on Claims Resolution Facilities*, 53 *LAW & CONTEMP. PROBS.* 113 (1990) (generally comparing models of claims processing facilities based on their similarities to litigation); Schneider, *supra* note 52, at 475 (comparing the transformative aspects of litigation and administrative funds).

Kenneth Feinberg wrote, it will be that “different claims resolution techniques [will be] appropriate for different claimants.”¹⁰⁷

Victims who do not perceive their damage as severe and/or who think the disaster was mainly the result of natural forces might prefer a simplified and expedited process, using predetermined formulas or schedules to fix an amount of compensation that will usually be lower. On the other hand, claimants who perceive themselves as severely harmed by a man-made disaster might rather opt for a more comprehensive process that, despite longer delays and a heightened proof requirement, offers extended opportunities for claimants to be heard and results in an award that is individually determined, and hence might reflect more closely the amount of damage they sustained. The aim of giving claimants different options of procedure and outcome is to meet the varying expectations of disaster victims better.

These results also provide information that might help policy makers decide whether to retain the tort system above the limits of the government compensation programs.¹⁰⁸ The vast majority of claimants preferred a distribution of relief money based on tort principles. However, creating a compensation program based on these very generous principles will often not be possible. In this context, retaining the tort system as a residual mechanism of compensation—for example, for the small number of cases that involve very serious damages in what can be proved to be a man-made disaster—might be an option to enhance claimants’ feelings of fairness.

My results teach us about fair disaster compensation, as defined by flood victims, in a context where the government was both the potential source of the losses and the compensation provider. The present results could lead to further research on perceptions of fairness of disaster victims in various contexts: a terrorist act resulting in mostly immaterial damages, an earthquake with abstract causes, an oil spill where a company runs the compensation program, etc. Because just like fairness, disaster is a multi-faceted concept that often changes through the eye of the beholder.

107. Feinberg, *supra* note 105, at 105 (adding that “the claimant is in the best position to determine the optimum procedure for resolving the claim”).

108. *See generally* Rabin, *supra* note 6, at 974-76 (discussing issues related to whether to retain the tort system in administrative compensation scheme).

*APPENDIX – RESPONDENTS’ CHARACTERISTICS**A. Demographic Characteristics*

DEMOGRAPHIC CHARACTERISTICS	RESPONDENTS
Gender	59% (108) male
Mean age	58.06
Median age	58.5
Type of property	Cottage: 79% (151) House: 19% (36) Lease: 1% (1) Business (non farm): 2% (3)
Number of persons in household – Average	2.67
Occupation	Working full time: 43% (81) Working part time: 7% (13) Retired: 43% (82) Looking after home/family: 2% (4)
Employment rate*	50% (88)
Annual income for household (2012)	None: 1% (1) Less than \$20,000: 3% (4) \$20,000 to \$39,999: 18% (28) \$40,000 to \$59,999: 19% (30) \$60,000 to \$79,999: 16% (25) \$80,000 to \$99,999: 10% (16) \$100,000 to 119,999: 9% (15) \$120,000 to \$139,999: 9% (14) \$140,000 or more: 16% (26)
Highest level of education	Grade 8 or less: 1% (2) Some high school: 4% (8) High school degree: 21% (38) Technical / vocational post-secondary college: 22% (40) Some university: 13% (23) University degree: 28% (51) Post graduate degree: 10% (18)

Table 11 – Respondent Characteristics (Twin Lake Beach and Lundar Beach & Sugar Point)

* Employment rate was obtained by adding working full-time and working part-time responses.

DEMOGRAPHIC CHARACTERISTICS	RESPONDENTS
Gender	75% (27) male
Mean age	61.3
Median age	61.5
Type of property	Cottage: 76% (29) House: 18% (7) Business (non farm): 6% (2)
Number of persons in household – Average	2.39
Occupation	Working full time: 38% (14) Working part time: 19% (7) Retired: 43% (16)
Employment rate*	57% (21)
Annual income for household (2012)	None: 0% (0) Less than \$20,000: 0% (0) \$20,000 to \$39,999: 6% (2) \$40,000 to \$59,999: 26% (8) \$60,000 to \$79,999: 26% (8) \$80,000 to \$99,999: 16% (5) \$100,000 to \$119,999: 13% (4) \$120,000 to \$139,999: 6% (2) \$140,000 or more: 6% (2)
Highest level of education	Grade 8 or less: 0% (0) Some high school: 3% (1) High school degree: 9% (3) Technical / vocational post-secondary college: 23% (8) Some university: 11% (4) University degree: 26% (9) Post graduate degree: 29% (10)

Table 12 – Respondent Characteristics (Delta Beach)

* See *supra* Table 11 and accompanying text.

B. Respondents' Level of Activism

Respondents were asked to indicate if they had been involved in any of the following activities, with regard to compensation after the 2011 spring floods:

I have not been an active participant in public discussions or debates (0);

I have spoken in public and/or in the media about my concerns (3);

I have been involved in lobbying government representatives (4);

I was active in efforts to change the compensation program (4);

I have organized meetings for victims of flood damage (2);

I have participated in meetings or discussions among victims of flood damage (including electronic discussions, such as on a listserv, blog, or Facebook page) (1);

I have established or participated in organizations to change the way things are done (4);

I have written articles or letters for publication (3); and

None (0)

Responses were coded not active (0), participant (1), organizer (2), speaker (3), and activist (4). As multiple answers were allowed, respondents were then coded based on the highest score among their responses.¹⁰⁹

As Table 13 indicates, there was a great variation in respondents' levels of activism. More than half of respondents had either not been active or had a very low level of activism with regard to the 2011 spring floods. The rate of respondents indicating they engaged in speaker and activist activities (46.5%) may have partly been the result of self-selection. In any event, no statistically significant differences were detected in the responses of activists and non-activists.

LEVEL OF ACTIVISM	RESPONDENTS
Not Active	18.0% (31)
Participant	35.5% (61)

109. The structure of this question was taken from the survey of Hadfield. Hadfield, *supra* note 9, at 678-79.

LEVEL OF ACTIVISM	RESPONDENTS
Organizer	0% (0)
Speaker	10.5% (18)
Activist	36.0% (62)

Table 13 – Level of Activism (Twin Lake Beach and Lundar Beach & Sugar Point) N=172