



BEFORE THE FLOOD

Reducing Louisiana's Vulnerability to Severe Weather Through Market-Based Insurance Reforms

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INTRODUCTION

This paper will examine Louisiana's vulnerability to severe weather and suggest market-based reforms to adapt to extreme inherent risks, which could be exacerbated by a changing climate.

It is undeniable that Louisiana is particularly vulnerable to catastrophes driven by extreme weather. Even worse, these catastrophic risks could increase in a changing climate. In a state facing such dangers, a robust and functioning insurance market is critical. To attain this kind of market, Louisiana policymakers should implement free-market reforms. Insurers must be free to

charge adequate rates for the products and coverages they offer and the risks they take on. Regulators must move quickly and efficiently to approve or reject rates and forms. Finally, lawmakers should consider policies that encourage property owners to reduce risk, for instance, through tax incentives or changes to building codes.

The paper also will discuss the risks faced by Louisiana, obstacles to reform and potential solutions to these obstacles, some viable and some apparent dead ends.

RISKS POSED TO LOUISIANA AND THE NEED FOR ADAPTATION

Regardless of whether Louisiana policymakers support reforms to address climate change, adaptation efforts that contemplate increased severe weather are worth pursuing because of the extreme risks posed by such events. Unlike climate-change mitigation, which is comprised of actions taken to reduce the causes of climate change, climate-change adaptations are steps to minimize the risks associated with climate change, like severe weather.¹ Unlike mitigation efforts, which are less certain to prove worthwhile, adaptation efforts are valuable because they offer benefits even if risks associated with climate change do not come to pass. Louisiana's 2005 experience with Hurricanes Katrina and Rita supports the wisdom of severe weather adaptation.

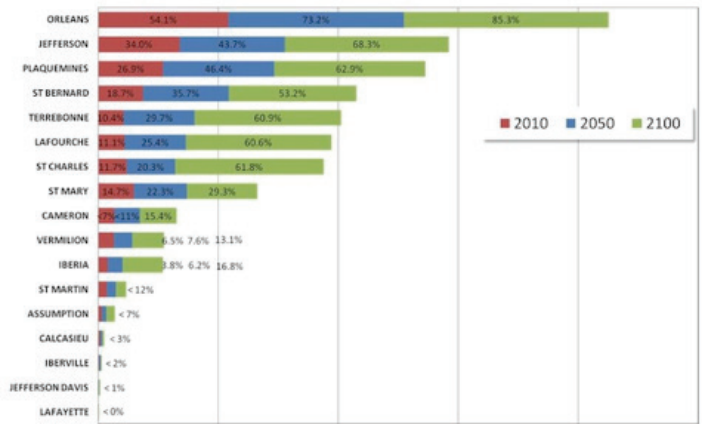
Hurricane Katrina, a storm not attributable to climate change,² is the most expensive natural catastrophe in U.S. history. Combined, it resulted in more than \$25 billion in privately insured personal property losses and another \$13 billion in losses to the National Flood Insurance Program (NFIP).³ This is remarkable given that the bulk of the non-flood insured losses took place when Katrina was a Category 3 storm, which is a major storm but not as catastrophic as a Category 4 or 5.⁴ The pecuniary impact of Katrina was as profound as it was because of Louisiana's unique vulnerability to the effects of severe weather.

Louisiana is home to huge tidal areas. There are 7,721 miles of Louisiana coast, an area which constitutes 15 percent of the state's total area.⁵ The Great Flood of 1927 inundated 10,000 square miles of Louisiana and spurred the development of much of the severe weather defense infrastructure which persists today.⁶ Hurricanes are also a menace. According to the Insurance Information Institute, between 1960 and 2008, five of the 11 most hurricane-prone counties in the nation were in Louisiana (Lafourche, Jefferson, St. Bernard, Cameron, Terrebonne).

Louisiana also is subsiding at a terrific pace. The slow, inevitable movement of tectonic plates is one thing, but avoidable, rapid, man-caused subsidence is another. Development has led to the disruption of a land-preserving ecosystem. Undisturbed, the Mississippi River provides a mass of sediment that becomes trapped by natural barriers as it empties into the Gulf of Mexico. But thanks to removal of the plants and trees that capture sediment, the natural barrier that props up southeastern Louisiana has begun to fail and land has begun to sink. Conservative estimates are that Louisiana's coast will lose about a half-inch of elevation per year.⁷

The projections become worse when climate-change projections are added to these considerations. Experts with the National Oceanic and Atmospheric Administration (NOAA) predict that: "Based on the frequency of storms over the last century, we know we can expect 30 to 40 hurricanes or tropical storms to hit this area by the end of this century." The effects of these storms will be magnified by accelerating sea-level rise and land subsidence. Experts note "the southeast corner of Louisiana looks likely to be under at least 4.3 feet of gulf water by the end of the century."⁸

Percent Land Below Sea Level by Parish Through 2100



Modeling included in the state's Coastal Master Plan indicates that, without future action to reduce coastal land loss, Louisiana stands to suffer annual flood damages of between \$7.7 billion (in an optimistic scenario) and \$23.4 billion (in a less optimistic scenario) for the next 50 years.⁹ As alarming as those numbers are, more disconcerting is that the Coastal Master Plan's estimates are predicated on the loss of coastal land alone. When considered in combination with steady population growth in those parishes, and along Louisiana's coast as a whole, the policy status quo and the risks it allows and encourages are untenable.¹⁰ Unless steps are taken to stem the development of vulnerable residential and industrial sites, losses could be even worse.

Current policy recommendations contemplate increased severe weather risks, but they would be wise to follow even if severe weather stays largely the same.

OBSTACLES TO FREE-MARKET ADAPTATION

Property insurers that write policies in Louisiana are perpetually seeking more information about severe weather-related risks. Insurers also often advocate specific structural adaptation strategies and mitigation of risk via building codes and better land-use practices. Because insurers often have the best understanding of the risks that confront the state, policy makers ought to allow them to communicate and act upon their assessments. In this way, the market transmits price signals to residents, who then can make informed decisions about the risks that they are undertaking.

Unfortunately, this is not always possible. Louisiana's legislative and regulatory environment, in combination with its penchant for quick and profound government reaction to natural disasters, has left many insurers wary of embracing the state's market. In concrete terms, Louisiana residents pay an average of \$1,546 annually for homeowners insurance coverage, the second-highest rate in the nation.¹¹

The chilling effect on insurers has not been absolute. Though slow to grow in the immediate aftermath of Hurricane Katrina, the Louisiana insurance market has rebounded since 2005. In 2013, the value of insured property in Louisiana's coastal parishes totaled \$293.5 billion and accounted for 36 percent of the state's total insured property exposure of \$823 billion.¹² In reality, because of its unique geography and the vulnerability of near-coastal parishes, Louisiana's true coastal exposure is likely markedly higher.

To ensure that Louisiana remains protected in the future, policymakers should be mindful of the distortionary effects their well-intentioned actions can create. To expand insurance options and to increase the number of Louisiana residents adequately covered, Louisiana must normalize the way insurers can do business so that the state can rebuild after future severe weather events. In short, regulators must allow prices to direct how and where people live and builders develop. The market can and should be allowed to solve the problem.

Three-Year Rule:

One glaring example of a well-intentioned statute – unique to Louisiana – with a harmful, distortionary effect is Louisiana Revised Statute 22:1333(c), more commonly known as the “three-year rule.”

The three-year rule reads in pertinent part:

“No insurer providing property, casualty, or liability insurance shall cancel or fail to renew a homeowner’s policy of insurance or to increase the policy deductible that has been in effect and renewed for more than three years unless based on nonpayment of premium, fraud of the insured, a material change in the risk being insured, two or more claims within a continuous three-year period of time within the five years preceding the current policy renewal date, or if continuation of such policy endangers the solvency of the insurer.”

The intention of this statute is to protect consumers from immediate policy non-renewals and to demand insurers abide by a “cooling off” period after a major event. Presumably, this is so they will be disinclined to leave the Louisiana market. In the aftermath of Katrina, the three-year rule was hailed by Louisiana's insurance commissioner as the reason insurers remained in the state. For a time, Commissioner Jim Donelon encouraged

policyholders to forego shopping for lower premiums to exploit the protective guarantee afforded by the three-year rule.¹³ In doing so, the commissioner led the public to take advantage of a big government, non-free market, rule, contrary to their long-term interests.

Nearly a decade after Katrina, other Louisiana policymakers remain convinced of the value of the three-year rule. An update to the rule was passed by the Louisiana Legislature without a single no vote (there were a total of 13 abstentions) and signed by Gov. Bobby Jindal during the 2014 legislative session.¹⁴

The trouble with this well intentioned restriction is three-fold:

- It forces insurers into costly and unnecessary review of policies on a triennial basis. If insurers forego undertaking the triennial review, they risk disrupting their risk pool for an extended period;
- It compels insurers to make decisions about their Louisiana exposure on an organizational level, rather than on a case-by-case basis. If an insurer chooses to limit its exposure, it must do at the cost of its entire Louisiana operation;
- The rule makes it difficult for insurers to communicate the true nature of the risk faced by consumers.

The great irony of the prevailing wisdom that insurers are likely to leave after a severe weather event is a potentially cruel self-fulfilling prophecy. If insurers are unable to limit their exposure to risk, they might be forced to leave. Thus, while it seems politically sensible for big-government adherents in Louisiana to ensnare the existing insurer population with the three-year rule, policymakers should also be aware that it is economically sensible for insurers to consider avoiding the snare by avoiding the Louisiana market in the first place, by charging higher premiums to account for this regulatory risk, or by leaving the state entirely.

Factually, the claim that insurers rush to leave markets after a catastrophe has occurred is inaccurate. Though it is true that years in which extreme hurricanes occur do correlate with a heightened chance of an insurer ceasing to do business in a state, the cause of a cessation in the aftermath of a severe hurricane is more likely to do with whether an insurer can pay claims (solvency) than it does an insurer's uncertainty about their underwriting performance.¹⁵

From an insurer's perspective, driven as it is by models and market forces, there is no such thing as a "cooling off" period. A prohibition on non-renewal, such as the three-year rule, has no favorable bearing on an insurer's decision to continue doing business in a state.

In fact, the opposite is true. State-specific regulatory eccentricities like the three-year rule are associated with a higher probability of an insurer exiting a state.¹⁶ This is no surprise, because regulations like the three-year rule undercut the most powerful tool available to insurers to ensure a robust response to hurricanes – risk diversification.

Insurers' tend to do everything in their power to maintain a presence in an afflicted market, so long as their business has been profitable to that point. Unless an insurer has little confidence in their loss modeling, there is no reason for them to leave. The notion that insurers are prone to run from accepting future risk after experiencing an anticipated loss is divorced from the fundamental truth of the insurance business: losses are expected.

For these reasons, among others, the three-year rule is unnecessary. It nourishes the problem it allegedly alleviates and should be abandoned.

Rate Adequacy

Insurers choose to exit markets when it becomes unprofitable or sufficiently inconvenient for them to do business in a particular line of business in a particular state. When insurers are forced to leave a market, insurance scarcity and lack of insurer competition will assure consumers of greater costs and fewer beneficial products.

The best way for Louisiana to ensure that insurers remain in the state is by ensuring that they can charge rates adequate to cover their risks. To an extent, insurers in Louisiana are able to price their products in accordance with the risk that they are designed to cover. But, not always. Though it is a modified "file-and-use" state, meaning that insurance regulators passively approve rates after they have been in effect for 45 days,¹⁷ the Louisiana Department of Insurance (LDI) has recently refused to accept a number of filed rate increases. This, too, is a disappointing exercise of big government in action.

For instance, in 2012, a homeowners insurance rate filing by State Farm was declined by the LDI. The filing

would have resulted in a 16.6 percent rate increase for roughly 300,000 policyholders.¹⁸ Though facially high, State Farm's requested rate increase was not unique. Other insurers were also denied rate increases. Farmers Insurance Exchange, after having two rate filings denied, opted to limit its exposure and leave the Louisiana market entirely.¹⁹ This is the last option that a profit-making organization has in an unfree market.

The prospective uncertainty introduced by LDI's refusal to grant rate increases is debilitating to insurers, as they now must worry about refunds and public relations problems should a rate in use later be found unacceptable by the department. This sort of regulatory gamesmanship guts the goal of file-and-use and forces some insurers to treat Louisiana as another troublesome "prior approval" state. It provides another reason for insurers to seek more favorable markets.

It is important to be mindful of the fact that insurance regulators are forced to make political and ideological considerations, in addition to actuarial concerns, when they make their rate determination. A given proposed rate might be risk-adequate, but politically costly to allow.

Development Subsidies

Louisiana is a victim of foolish federal development subsidies in the form of subsidized flood insurance. There are almost 500,000 National Flood Insurance Program (NFIP) policies in force in the state. The total exposure represented by those policies is \$112 billion.²⁰ As a result, a large proportion of Louisiana's population has enjoyed short-term economic benefits at the cost of long-term security and economic viability.

The NFIP maintains suppressed rates that, in many cases, are well below what the private market would charge. By doing so, the program provides incentive to develop areas for human use (and future loss) that otherwise would remain untouched. The environmental and human costs of such development are high, even if not immediately realized as dangerous in the form of dramatic rescue scenes. What is realized immediately is a massive transfer of risk from a small percentage of homeowners onto the backs of all taxpayers, even those that have chosen to live out of harm's way.

Nationally, it would be a great service to Americans everywhere for policymakers to phase out flood insurance subsidies. Private markets, while not prepared to take on all of the risk, could play a role in bringing flood insurance rates into conformity with actual levels of risk.

Louisiana's congressional delegation, which represents a sizable proportion of people currently enjoying subsidized risk, could speak with unique authority about the deleterious impact of those subsidies.

SOLUTIONS

While the problems posed to Louisiana are daunting, they are not irresolvable. There are solutions, but achieving the solutions will require stout political will and a long-term, strong, and organized effort. Education of policymakers, regulators and the general public is the starting point. The next steps are to generate and pass whatever free-market legislative or regulatory changes are required, starting with the following recommendations.

Risk-Adequate Insurance Pricing

It is not certain that any single approach will prove itself a panacea when it comes to severe weather preparedness. But since the cost of an event is quantifiable, one of the most fundamental steps Louisiana can take is to allow insurers to undertake risk-based pricing of their products; that is, rates should be based on the probability of loss. It would seem that any prudent state should fight hard to ensure that insurers' rates are sufficient to cover expected losses.

While potentially painful, and certainly not immediately realizable, risk-adequate pricing provides the most comprehensive approach to severe weather preparedness, because of the way in which it can modify the core problem of locational vulnerability. Risk-based pricing affects consumers' behavior in terms of whether and how much they are willing to pay for risky practices.

Put another way, would people be likely to build or buy structures subject to severe weather if insurers were allowed to price rates on those structures based on the true risk? Experience shows that if property insurance is subsidized or policyholders are allowed to pay less than market rate, they will overinvest in such structures.²¹ Where people have to pay the true cost, many would be less willing to put themselves in harm's way by making an economically unsound purchase. Most simply would find a safer location.

Were Louisiana to undertake risk-adequate pricing reforms to its property insurance regulatory apparatus, it would undercut the powerful pricing rationales for development, which in time subverts Louisiana's most effective severe-weather defense mechanism, its natural barriers. When the insurance cost of coastal development takes on a form reflective of the true risk, developers will have to think seriously about whether or not they wish to proceed.

Modified Flex-Rating

Unlike other coastal areas in the United States, which are known for their mansion-dotted shores, Louisiana's coastline is the home to much of its industry and blue-collar workforce. As a result, Louisiana's coastline is more sensitive to the costs associated with risk-adequate pricing. To make risk-adequate pricing more palatable politically, a system by which existing property is insulated from steep premium increases should be put into place.

In practice, Louisiana might allow insurers currently laboring under the "three-year" rule policies to increase rates predictably and incrementally over time by introducing a modified "flex-rating" system. Flex-rating allows insurers to file defined "bands" of rates, in which they may increase or decrease their rates without seeking department approval. A modified flex-rating system would allow insurers to file a rating band with different tiers of the band accessible over time.

For example, instead of filing for a single rate (Rate 1) the insurer would file for a band of rates (Rate 1 through Rate 5). For the first two years that the rate band is in effect, the insurer would only be able to raise its premium to Rate 3 instead of all of the way to Rate 5. But, policyholders would know that in a further two years their premium would likely progress to Rate 5.

Thus, instead of “grandfathering” existing structures, thereby exempting them altogether from risk-adequate pricing, policyholders would enjoy the coordination benefits of risk-adequate pricing without a sudden impact.

A Louisiana approach to flex-band rating should mirror a proposal offered by the National Conference of Insurance Legislators (NCOIL).²² The band suggested by NCOIL is 12 percent. This free-market reform would provide insurers with the flexibility necessary to project what an actuarially sound premium will be, while simultaneously allowing policyholders to plan their future actions with incrementally increasing insurance costs in mind.

Building Code Tax Incentives

Rigorous building codes are an important component of ensuring that Louisiana can limit the impact of severe weather. They reduce damage and limit the severity of the financial impact of a storm. According to the Insurance Information Institute:

“In the mid-1980s, a study of the damage caused by Hurricanes Alicia (1983) and Diana (1984), two storms of roughly equal size and intensity, found that the level of building code enforcement affected the cost of claims. Hurricane Alicia hit Texas, causing \$675 million in insured damage, of which close to 70 percent was attributed to poor code enforcement. By contrast, Hurricane Diana hit North Carolina, where codes were effectively enforced. Researchers found that only 3 percent of homes in that state suffered major structural damage as result of the hurricane. (Insured losses for North and South Carolina totaled \$36 million.)”

Troublingly, from a free-market perspective, building codes often take the form of heavy-handed government involvement, which can trample private property rights and lead to the misallocation of resources. To avoid both of these problems, Louisiana has laudably sought to further structural fortification by other means.

Since 2005, when the Louisiana legislature held an extraordinary session in the wake of Hurricane Katrina, the state has had a building code. In an effort to speed compliance with the code, Louisiana chose to offer tax incentives for residents to harden their homes against severe weather. In particular:

- Under R.S. 47:293(10), residents may receive tax deductions of up to 50 percent of the cost paid (or, \$5,000) for bringing existing structures into compliance with the code;

- Under R.S. 47:301(10)(ee), residents enjoy sales and use tax exemptions on the installation of storm shutters.

Tax incentives are desirable because they allow property owners to seek the best solution for their individual vulnerabilities. This minimizes waste and allows the state to focus on compliance with those that choose to participate. If anything, Louisiana should broaden the scope of its tax incentives.

Wetlands Restoration and Preservation

Louisiana can reduce the effects of severe weather by focusing on wetlands restoration and preservation. Wetlands absorb energy from destructive coastal waves, absorb storm surge and reduce the intensity of hurricanes and tropical storms.

In 2012, federal legislation known as the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE Act) became law.²³ The goal of the RESTORE Act is to channel fines from the 2010 Deepwater Horizon oil spill into efforts to mitigate the impact of the spill and to increase the resilience of the Gulf Coast to future disasters.

By prudently directing RESTORE Act funds toward wetland restoration, Louisiana could at once fortify its coastline and its economy. Outside of acting as a defensive barrier, wetlands also function as seafood species habitat; grounds for recreation; and as a water filtration system.²⁴ Both in terms of capital created by commercial activity and public money saved by reducing the load on public water treatment, RESTORE Act funds directed toward wetland restoration will translate into readily identifiable public goods.

The parts of the coast Louisiana does not yet need to restore, it should preserve.

Enshrined in law in 1982, the federal Coastal Barrier Resources Act (CBRA) removed federal support for high-risk development in ecologically sensitive regions. By consciously eliminating federal subsidies, such as flood insurance, much of the temptation to develop in CBRA-designated areas was removed. Since its inception, it is estimated that the CBRA has saved taxpayers more than \$1 billion.²⁵

DEAD ENDS

Insurer-Subsidized Building Code Compliance

Since 2007, Louisiana has compelled insurers to offer discounts if insureds either build with adaptation in mind or “harden” their existing structures. While structural hardening of all types is desirable for the damage it forestalls, insurers are exactly the wrong entity on which to place that burden.

Unlike the state, which enjoys a direct benefit in the form of reduced emergency costs due to adaptation, insurers have an attenuated nexus between adaptation and loss. In theory, forcing insurers to reduce premiums as structural risk decreases will compel homeowners insurance prices to reflect reduced risk. Problematically, the extent to which risk has been reduced does not always correspond with the level of the discount that the insurer is statutorily obligated to offer. This warps the price signals about true risk that insurers are able to give.

Louisiana should abandon its policy of mandatory premium discounts because, in the event that risk has actually decreased, insurers already have a competitive incentive to lower the rates of retrofitted homes.

State-Sponsored Mega-Projects

Given Louisiana’s de minimis impact on global greenhouse gas emissions, there is little the state can do to mitigate climate change in a way that would reduce severe weather events. While there are other compelling reasons to implement strategies designed to curb greenhouse gas emissions, emissions control and green-energy subsidy efforts are not only uncertain in their implementation, but will also do little to help Louisiana deal with severe weather and other climate risks.

Heavy-handed government intervention in the form of large, politically based public projects is counter-productive.

Louisiana Flood Insurance

Some have suggested the state should enter the flood insurance business, particularly in light of possible rate increases in the National Flood Insurance Program (NFIP).²⁶ While well-meaning, a state-operated flood insurance plan is possibly the most harmful proposal that Louisiana could implement. State policymakers must adopt a long-term view of the insurance affordability vs. availability debate. A state-operated flood insurance plan explicitly designed to reduce the price of flood insurance would double-down on the NFIP’s worst attributes.

Louisiana’s current residual insurer, Louisiana Citizens, is in the process of drawing down the number of policies that it has on its books, in an effort to reduce taxpayer exposure.²⁷ In a scene that developers would love, if Louisiana were to go into the flood insurance business, it would dramatically increase the number of underpriced policies that it is responsible for, and might simultaneously encourage the very development that makes the NFIP unsustainable. Worse, a similar program in Louisiana would see a similar transfer of risk onto its taxpayers, but without the financial strength of the federal government behind the guarantee. Imperiling the long-term financial health of Louisiana to subsidize short-term flood insurance affordability may be the worst idea of all.

The Louisiana congressional delegation should champion an expansion of the CBRA to include vulnerable undeveloped portions of the state’s coast. Doing so would be a free-market approach to conservation that would allow the market to dictate where it is impracticable to live and work.

CONCLUSION

Though the insurance industry bases important business decisions on the assumption that climate change is occurring, even those skeptical about the causes or severity of global warming ought to recognize the value of severe weather adaptation in Louisiana. The state's extreme vulnerability – in terms of weather trends, land subsidence and population density – makes policy change a necessity.

Instead of controlling development through controversial and sure-to-fail centralized planning mechanisms, Louisiana should seek to modify behavior by allowing

its residents to understand the true cost of the risk that they face. If available to them, the true cost of living in a dangerous location will at once promote awareness of danger and encourage economically rational decision-making.

At bottom, a free-market approach embraces individual Louisianans' decision-making potential. This will, at once, promote structural adaptation, reduce ill-conceived development and preserve Louisiana's vital natural barriers.

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