

Tulane Institute on Water Resources Law & Policy

INSURABILITY OF COASTAL COMMUNITIES

Financing Options for Coastal Protection and Restoration in Louisiana

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I. INTRODUCTION

The worst physical impacts of coastal land loss – increased flooding, more frequent and intense storms, land becoming open water – will not be felt for at least two decades. However, the impacts of a vanishing coast are not confined to the physical landscape. Unseen, but no less consequential for the survival of the coast, is the financial landscape where insurers, investors, bond raters, and others map the economic viability of coastal communities. Some of these actors are starting to look past their traditional horizons, contemplating decisions today that will affect the coast for generations. The decisions on many of these points - whether to offer insurance and for how much, how climate change affects municipal bond ratings, whether to underwrite mortgages, whether to relocate an existing business out of harm's way - exist outside the civic discourse and often outside Louisiana. Though invisible, the financial impacts of climate change will presage physical land loss, and could gut communities just as surely as floods and hurricanes. Collaborating with insurers and the Federal Government to prepare for the impact of changes to the insurability of coastal Louisiana will be key to its future.

In 2017, the Louisiana Coastal Protection and Restoration Authority released the latest iteration of the state's Coastal Master Plan. As in previous years, the plan prominently displayed

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maps of the latest sea level rise projections. The projections were dire; what had been the worst-case scenario in the 2012 plan was now the best-case scenario. The new worst-case scenario estimates over 4,000 square miles of land will be lost between now and 2067 without further action.² There is, generally speaking, acceptance of the science underpinning these projections and a consensus that climate change imperil the economy, culture, and indeed, the very future of south Louisiana. Yet the response from government actors and stakeholders has, in many cases, lacked the fervor one would expect for such a daunting existential threat. This can be partly attributed to what has been termed the ‘tragedy of the horizon’.³ The tragedy of the horizon refers to the fact that “the catastrophic impacts of climate change will be felt beyond the traditional horizons of most actors – imposing a cost on future generations that the current generation has no direct incentive to fix. That means beyond the business cycle, the political cycle, and the horizon of technocratic authorities, like central banks, who are bound by their mandates.”⁴ Simply put, while the threat of climate change requires action now, the institutions with the power to act were not designed to address challenges on this time scale.

The consequences of an eroding coast present a challenge for the State of Louisiana, and for the nation, but the hardest-hit entities will undoubtedly be the parishes and municipalities – the Coastal Political Subdivisions (“CPSs”) – on the front lines. Any decision to relocate a business, increase insurance premiums beyond affordable levels, or refuse to underwrite a mortgage on property, has the potential to be a ‘tipping point’ that imperils or compromises the future economic viability of coastal communities. Further, because these potential tipping points are interrelated, a decision in one sector could have cascading impacts. An insurer, for example, might decide to stop offering business interruption insurance in a particular area. That decision could lead to business relocation, which might lead to population decrease as people move with jobs. Consequently, the parish tax base shrinks, further compromising the ability to pay for adaptation measures and possibly spurring more businesses to move and more insurers to reexamine the policies they offer along the coast. The purpose of this paper, and others to follow,

² Louisiana’s Coastal Protection and Restoration Authority, LOUISIANA’S COMPREHENSIVE MASTER PLAN FOR A SUSTAINABLE COAST 74 (2017), http://coastal.la.gov/wp-content/uploads/2017/04/2017-Coastal-Master-Plan_Web-Book_CFinal-with-Effective-Date-06092017.pdf.

³ Mark Carney, the governor of the Bank of England coined the term at a speech to insurance giant Lloyd’s of London. *Mark Carney Speech in Full: 'Climate Change is the Tragedy of the Horizon'*, BUSINESS GREEN (2015), <https://www.businessgreen.com/bg/opinion/2428163/mark-carney-speech-in-full-climate-change-is-the-tragedy-of-the-horizon>.

⁴ Id.

is to identify these potential tipping points, map their interrelations, and provide coastal stakeholders the information needed to engage decision makers and avoid the worst economic consequences.

II. INSURANCE

The role that insurance and insurers play in coastal development and adaptation has long been in the crosshairs of academic and policy discussions. Commenters frequently criticize flood insurance subsidies, like those provided through the National Flood Insurance Program (NFIP), for providing incentives to develop in otherwise unsuitable areas. The NFIP is not, however, the only insurance program that affects risk assessment in coastal areas. Crop insurance, commercial property insurance, business interruption insurance, and other insurance products factor into the investment decisions made in coastal regions. Increased premiums for commercial actors along the coast could tip the scales in favor of inland relocation. Similarly, a spike in homeowner's insurance premiums (or a decision to stop writing policies all together) could make coastal property less attractive to both homeowners and lenders, eroding property values (and, necessarily, property tax revenue).

In the past, insurers have relied on historic data to estimate risk and set premiums accordingly. There is growing recognition in the industry, however, that past losses may no longer be an adequate predictor of future risk. The Geneva Association, a leading international insurance think tank, published a report in 2013 noting "traditional approaches, which are solely based on analyzing historical data, increasingly fail to estimate today's hazard probabilities. A paradigm shift from historic to predictive risk assessment methods is necessary."⁵ Similarly, public actors in the insurance sector are reconsidering their role in providing flood insurance. In 2017, the NFIP came up for reauthorization, and there existed considerable legislative momentum to limit the Federal Government's fiscal exposure by overhauling the program.⁶ Both private and public actors in the insurance industry are reconsidering their approach to, and appetite for, risk. Understanding how the industry is accounting for climate change and what that could mean for coastal communities will be critical.

⁵ FALK NIEHÖRSTER, ET AL., WARMING OF THE OCEANS & IMPLICATIONS FOR THE (RE)INS. INDUST. 3 (Geneva Assoc., 2013), https://www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public//ga2013-warming_of_the_oceans.pdf.

⁶ 21st Century Flood Reform Act, H.R. 2874, 115th Cong. (2017), <https://www.congress.gov/115/bills/hr2874/BILLS-115hr2874rfs.pdf>.

a. Publicly Subsidized Flood Insurance

Congress created the National Flood Insurance Program in 1968 as a way to curb the rising federal cost of providing post-disaster flood relief. The NFIP was created “to address the policy objectives of identifying flood risk, offering affordable insurance premiums to encourage program participation, and promoting community-based floodplain management.”⁷ There are four key elements of the program designed to carry out these objectives: (1) mapping flood risk, (2) managing floodplains, (3) providing affordable flood insurance, and (4) incentivizing local efforts at risk reduction through grants and discounted premiums.⁸ These program elements overlap as the flood risk mapping informs the setting of insurance rates and determines what incentives are available for communities participating in the program.⁹ About 80% of all NFIP-insured properties pay full-risk rates – meaning the premiums collected are sufficient to cover expected claims – while the remaining 20% pay subsidized rates.¹⁰ “Generally, subsidized policies cover properties in high-risk locations that otherwise would have been charged higher premiums and that were built before flood maps became available and their flood risk was clearly understood.”¹¹ While subsidized policies make up only a small portion of all NFIP policies, they account for the majority of claims. Indeed, one class of subsidized properties known as ‘repetitive loss properties’ make up only 1% of all policies but receive 30% of all claim dollars paid.

As of December 31, 2017, there are almost 500 thousand active NFIP policies in Louisiana, valued at \$128 billion.¹² Many of these policies are located near major population centers, with East Baton Rouge Parish, Jefferson Parish, Orleans Parish, and St. Tammany Parish holding the most policies.¹³ Since the inception of the NFIP, losses in Louisiana nearly equal the amount of policies currently in effect.¹⁴ Large portions of these payouts are allocated to repetitive loss properties in the most vulnerable parts of Louisiana. The largest payouts were to

⁷ FLOOD INS.: COMPREHENSIVE REFORM COULD IMPROVE SOLVENCY & ENHANCE RESILIENCE 3 (Gov’t Accountability Office, Apr. 2017), <https://www.gao.gov/assets/690/684354.pdf>.

⁸ Id.

⁹ Id. at 4-5.

¹⁰ Id. at 6.

¹¹ Id. at 6-7.

¹² FEMA, POLICY STATISTICS (Dec. 31, 2017), <https://bsa.nfipstat.fema.gov/reports/1011.htm>. This number is only outpaced by policies in Texas. Id.

¹³ Id.

¹⁴ FEMA, LOSS STATISTICS (Dec. 31, 2017), <https://bsa.nfipstat.fema.gov/reports/1040.htm#22>.

the same parishes; however, it is worth noting that St. Bernard Parish has an extremely high payout amount in light of its comparably low number of existing policies.¹⁵

Currently, the NFIP is heavily in debt to the US Treasury, and that has spurred renewed interest in fiscal reform. Congress originally authorized the NFIP to borrow up to \$1 billion from the United States Treasury to pay claims in excess of program funds.¹⁶ For most of the NFIP's existence, it remained solvent, borrowing only occasionally from the treasury to cover claims and paying back the loans with collected premiums.¹⁷ That changed in 2005 with Hurricanes Katrina, Rita, and Wilma causing insured losses of \$16.6 billion.¹⁸ Congress raised the borrowing limit to \$20 billion to cover the claim payouts.¹⁹ Congress raised the limit again to cover losses after superstorm Sandy.²⁰ After Hurricane Matthew and the Louisiana floods of 2016, FEMA again borrowed from the treasury, raising the NFIP's total debt to \$24.6 billion.²¹ With the increasing frequency and severity of storms, along with an increased concentration of assets in high-risk areas, it is highly unlikely that premiums at current amounts will ever be able to repay that debt.

Previous attempts to reform the NFIP have failed due to strong resistance from homeowners and other stakeholders. In the immediate aftermath of superstorm Sandy, Congress passed the Biggert-Waters Flood Insurance Reform Act (Biggert-Waters).²² A core provision of Biggert-Waters was the addition of language around the goal of making the NFIP solvent.²³ Specific measures designed to achieve this goal included provisions for phasing in premium increases and elimination of premium subsidies for properties grandfathered in to lower risk categories, including properties subject to severe repetitive loss.²⁴ Whether these reforms were sufficient to bring the NFIP to solvency is a debate that is now moot. As one commenter put it,

¹⁵ Id. St. Bernard Parish has nearly 2.3 billion in losses with only 11 thousand policies currently in effect. This is an excellent example of the financial impact of repetitive loss properties on the viability of the NFIP.

¹⁶ FLOOD INS.: COMPREHENSIVE REFORM COULD IMPROVE SOLVENCY & ENHANCE RESILIENCE 8 (Gov't Accountability Office, Apr. 2017), <https://www.gao.gov/assets/690/684354.pdf>.

¹⁷ Id.

¹⁸ Letter from Daniel Garcia-Diaz, Dir., GAO, to Randy Neugenbauer 9, <https://www.gao.gov/assets/670/662438.pdf>.

¹⁹ Id.

²⁰ Id.

²¹ Id.

²² Pub. L. No. 112-141, tit. II, subtit. A, 126 Stat. 916 (codified as amended at 42 U.S.C. §§ 4001-130 (2014)).

²³ Letter from Daniel Garcia-Diaz, Dir., GAO, to Randy Neugenbauer 1, <https://www.gao.gov/assets/670/662438.pdf>.

²⁴ Id.

“Congress did not let this laudable new statute live long enough to do any good. Immediately after it was enacted, subsidy recipients, now scheduled to lose their discounts, protested, and Congress quickly reacted...enacting an almost full repeal of the 2012 reform.”²⁵

The repeal came in the form of the 2014 Homeowner Flood Insurance Affordability Act (HFIAA).²⁶ Among other provisions, the HFIAA reinstated grandfathering of subsidized rates for repetitive loss properties and moderated the premium increases required by Biggert-Waters.²⁷ While the HFIAA included annual surcharges designed to offset the impact of subsidies, analysis by the Government Accountability Office (GAO) showed that the repeal of Biggert-Waters would likely reduce program revenues and prolong the long-term burden on taxpayers.²⁸ The political pressure to offset homeowner costs proved stronger than the desire for NFIP solvency. Sen. Bob Menendez of New Jersey, who co-wrote the HFIAA bill, stated after the bill was signed into law “we have averted the manmade perfect storm that would have crushed thousands of families under the weight of skyrocketing flood insurance rates, forced many from their homes, plummeted property values and destroyed entire communities.”²⁹

That ‘perfect storm’ may again be brewing. The current NFIP authorization was set to expire in September 2017, but the deadline was repeatedly pushed alongside the general appropriations bill.³⁰ Reauthorization will almost certainly entail reform, but not necessarily improvement. At its core, the HFIAA reinstated a set of incompatible goals that have plagued the NFIP since its inception. The HFIAA purports to work towards three goals: helping families maintain affordable flood insurance, ensuring the financial stability of the NFIP, and reducing the risks and consequences of flooding nationwide. Financial stability depends on setting actuarially sound rates for premiums so that the program can cover insured losses, including from catastrophic events. As the NFIP’s debt levels indicate, however, claims on insured losses have far outpaced premium collections since 2005.

²⁵ Omri Ben-Shahar & Kyle D. Logue, *The Perverse Effects of Subsidized Weather Insurance*, 68 STAN. L. REV. 571, 579 (2016).

²⁶ Homeowner Flood Insurance Affordability Act of 2014, Pub. L. No. 113-89 (Mar. 21, 2014).

²⁷ Letter from Daniel Garcia-Diaz, Dir., GAO, to Randy Neugenbauer 2, <https://www.gao.gov/assets/670/662438.pdf>.

²⁸ See generally Id.

²⁹ Andrew G. Simpson, *Senate Approves Bill to Curb Flood Insurance Hikes*, INSUR. J., Mar. 13, 2014, <http://www.insurancejournal.com/news/national/2014/03/13/323273.htm>.

³⁰ Ariel Wittenberg, *Deal elusive as Congress eyes recess*, E&E NEWS, Dec. 5, 2017, <https://www.eenews.net/eedaily/stories/1060068071/>.

Despite the recent experience with Biggert-Waters and the HFIAA, Congress has again expressed a desire to put the NFIP on firmer financial footing with the introduction of the 21st Century Flood Reform Act, which has not been yet passed by the Senate.³¹ Assuming the bill passes, it will incite strong reactions from experts in the field. It is opposed by the National Association of Realtors, which believes it “could lead to the same consumer confusion, sticker shock, and market disruptions experienced following the passage of the Biggert-Waters Act in 2012.”³² The American Bankers Association voiced concerns that the bill could trigger another housing crisis. “As borrowers lose NFIP coverage, and especially if alternative private coverage is not available or affordable, these properties will lose value and the risk of abandonment and/or foreclosure increases dramatically.”³³ Some homeowners are already dealing with decreased property values, even under the ameliorated reforms of the HFIAA. The New York Times recently reported on the story of a Norfolk, VA, resident who tried to sell her home to avoid rising flood insurance premiums.

A real estate agent she consulted told her that she’d be lucky to sell the house for \$180,000, barely more than half of what she paid for it and significantly less than what she still owed on the mortgage. Everyone looking at places near the river, the agent said, asked about flood insurance first. It wasn’t the risk of high waters that spooked buyers; it was the certainty of high premiums.³⁴

At the moment, the impact of rising insurance rates on property values is mostly anecdotal, but a future of rising rates will undoubtedly shift the market as buyers (and their lenders) deal with premium increases.

The 21st Century Flood Reform Act aimed at correcting the same solvency and affordability issues Biggert-Waters attempted to address. Among other provisions, the plan would require FEMA to conduct an annual independent actuarial study, increase surcharges for all covered properties, and phase out NFIP coverage altogether for high-risk properties with

³¹ 21st Century Flood Reform Act, H.R. 2874, 115th Cong. (2017), <https://www.congress.gov/115/bills/hr2874/BILLS-115hr2874rfs.pdf>.

³² Brandon Ross, Flood Insurance Bill Could Trigger Housing Crisis: Trade Groups, BNA NEWS, Jun. 20, 2017, <https://www.bna.com/flood-insurance-bill-n73014453613/>.

³³ Id.

³⁴ Brooke Jarvis, When Rising Seas Transform Risk into Certainty, N.Y. TIMES, Apr. 18, 2017, <https://www.nytimes.com/2017/04/18/magazine/when-rising-seas-transform-risk-into-certainty.html>.

available private insurance options.³⁵ To maintain affordability, the proposed legislation would authorize FEMA to provide mitigation credits for policyholders who actively mitigate flood risk on their property.³⁶ The proposal would also require specific mitigation plans for communities with 50 or more repetitive loss structures.³⁷ It is very likely that any reforms will increase the cost of flood insurance for a large swathe of policyholders.

b. Private Insurance

Private insurers play a critical role in providing insurance along Louisiana's coast, especially for businesses and governments. While the NFIP does provide commercial coverage, it is capped at \$500,000 for building property and \$500,000 for 'personal' property (the contents of the business, including stock).³⁸ Further, the NFIP's commercial coverage loss structure replaces the 'actual cash value' only, meaning depreciation of both building and personal property is deducted from the payout.³⁹ Additionally, the NFIP does not offer business interruption insurance, which compensates policyholders for lost business income in the aftermath of covered catastrophic events.⁴⁰ Because of these limitations, many businesses choose to purchase excess coverage from private insurers. Unlike the NFIP, private insurers are not constrained by statute to offer affordable policies, or even to offer policies at all. The costs of commercial flood insurance premiums, whether through the NFIP or through excess private insurance coverage, as well as business interruption insurance, have a direct bearing on a business's bottom line. As public and private insurers reevaluate their risk assessment models, premium increases could tip businesses in coastal areas away from profitability.

If current legislative proposals as well as academic and industry analysis are any indication, the future of insurance in coastal areas will include an increased role for private insurers. Many of the calls for reform of the NFIP center on shifting the burden away from taxpayers by increasing the role of private insurers. This will necessitate an increase in rates for private insurers, which will require an economic incentive to participate in the market. However,

³⁵ Letter from James Ballentine, Exec. Vice Pres., Am. Bankers Assoc., to Rep. Jeb Hensarling and Rep. Maxine Waters, H. Comm. on Fin. Serv. (Jun. 13, 2017),

<https://www.aba.com/Advocacy/LetterstoCongress/Documents/ABAFloodingInsurancememo061317.pdf>.

³⁶ 21st Century Flood Reform Act, H.R. 2874, 115th Cong. § 113(b) (2017),

<https://www.congress.gov/115/bills/hr2874/BILLS-115hr2874rfs.pdf>.

³⁷ Id. at §402(e) (4-5).

³⁸ *Summary of Coverage*, FEMA (2012), https://www.fema.gov/media-library-data/20130726-1620-20490-9466/f_679_summaryofcoverage_11_2012.txt.

³⁹ Id.

⁴⁰ Id.

policies to encourage private insurer participation will need to be crafted to balance insurers' economic interests while safeguarding affordability for vulnerable populations. As the GAO noted, "insurers need to be able to charge premium rates that reflect the full estimated risk of potential flood losses while still allowing the companies to make a profit, as well as be able to decide which applicants they will insure."⁴¹ This, of course, was one of the primary motivations for the NFIP in the first place: private insurers were unwilling or unable to offer affordable rates that were also actuarially sound (let alone profitable). Recent trends, however, indicate that private participation in flood insurance is more feasible than in the past. According to the American Academy of Actuaries "advances in scientific modeling, technology, data, and capital markets make it possible for the private market to become more involved. There is now a growing market for primary flood insurance, including one major reinsurer that is marketing inland flood endorsements for mutual insurers and another major reinsurer that has developed its own proprietary flood map."⁴²

As legislators design policies to encourage private participation, insurers themselves are reevaluating the ways they assess risks in an era of climate change. In general, the only way to ensure that ambiguous risks remain insurable is to promote risk mitigation today. The insurance industry should play an active role in raising awareness of risk and climate change through risk education and disseminating high-quality risk information. In addition, there is real benefit for the industry in supporting and encouraging adaptation through innovative product design. This can, and should, be done in collaboration with local authorities through engagement in public-private cooperation.

The Federal Government's role in that public-private cooperation could shift to providing need-based subsidies, as well as supporting mitigation. As Steve Ellis, vice president of Taxpayers for Common Sense, testified at a Senate Banking Committee hearing "rates in the program must over time be linked to risk, while understanding there may be some in the program who will need assistance in order to pay higher rates for reduced risk. Premium assistance should be targeted to those who need it, encourage and fund mitigation measures that could serve to

⁴¹ U.S. GOV'T ACCOUNT. OFFICE, FLOOD INSURANCE: STRATEGIES FOR INCREASING PRIVATE SECTOR INVESTMENT, summary (2014), <https://www.gao.gov/products/GAO-14-127>.

⁴² AM. ACAD. OF ACTUARIES, FLOOD INS. WORK GROUP, THE NATIONAL FLOOD INSURANCE PROGRAM: CHALLENGES AND SOLUTIONS (April 2017). Inland is defined as "low-to-moderate flood hazard areas outside of wind and surge-exposed Atlantic and Gulf coastal counties."

reduce rates by reducing risks. These mitigation efforts should be targeted at higher risk and lower income property owners.”⁴³ Subsidizing mitigation, rather than premiums, would likely be a more sound use of federal funds. According to Larry Larson, director emeritus of the Association of State Floodplain Managers “if we help subsidize mitigation, then the property is saved, the property owner can afford the insurance, the taxpayer helps pay off that loan in some ways, but then the process is over and we don’t have to keep going back and back.”⁴⁴ Ultimately, the insurance industry’s role could involve more dialogue with policyholders, informing them not only of risk, but also of potential mitigation measures that could reduce risk (and thus reduce premiums). The Federal Government, in turn, could reduce its administrative and fiscal burden by transferring risk to the private sector while providing upfront funds for risk mitigation.

Private insurers could model their efforts to encourage adaptation on the current Community Rating System (CRS), an underused component of the NFIP. CRS uses a points system to offset premiums if participating local governments implement measures that go “above and beyond” the NFIP’s baseline requirements.⁴⁵ In Louisiana, communities currently earn premium reductions of between 5%-20%.⁴⁶ In 2013, total CRS savings in Louisiana amounted to \$35,071,512.⁴⁷ Despite the potential savings, only 25% of parishes and 8% of municipalities participate in the CRS program.⁴⁸ A number of factors influence participation but a recent report by the Center for Planning Excellence highlighted capacity issues, misalignment of cost and benefit, and the political unpopularity of increased regulation.⁴⁹ It is time consuming for coastal political subdivisions to attain (and retain) CRS certification and many smaller governments simply lack the manpower. Further, local politicians may be unwilling to take on the very real and immediate costs for long term benefits that accrue to property owners. In many places along the coast, it is politically difficult to sell residents on stricter land use regulations and permitting,

⁴³ *Flood Insurance Reform: A Taxpayer’s Perspective Before the H. Comm. On Fin. Serv.*, 115 Cong. 4, <https://financialservices.house.gov/uploadedfiles/hhrg-115-ba00-wstate-sellis-20170607.pdf>.

⁴⁴ Gloria Gonzalez, *NFIP Reforms Encouraged to Demonstrate True Flood Risk*, BUSINESS INSURANCE, May 8, 2017, <http://www.businessinsurance.com/article/00010101/NEWS06/912313307/NFIP-reforms-encouraged-to-demonstrate-true-flood-risk>.

⁴⁵ FEMA, NFIP, FLOOD INSURANCE MANUAL Def 5 (Oct. 2016), https://www.fema.gov/media-library-data/1478092829450-8888e48211627ecb78e34d0eb6bae160/20_crs_508_oct2016.pdf.

⁴⁶ FEMA, NFIP, CRS STATE PROFILE: LOUISIANA 4-6 (Jan. 2014).

⁴⁷ Id. at 6.

⁴⁸ Center for Planning Excellence, The Community Rating System: Making it Work for Louisiana 2 (2016), https://static1.squarespace.com/static/536d55f1e4b07afeea8cef61/t/599f2b6737c581c14836c432/1503603592008/CRS_final.pdf.

⁴⁹ See generally Id.

“activities that run afoul of many constituent’s property rights ethos.”⁵⁰ If, however, private insurers become the dominant actor in the flood insurance market place, participation in risk mitigation may become the sine qua non for affordable flood insurance (or any flood insurance). While local governments may now be reluctant to spend taxpayer dollars and invite increased federal oversight, they may have no choice but to engage with private insurers to maintain insurability.

An example of how that dialogue might play out is seen in the State of Louisiana’s recent experience with the University Medical Center. With a construction cost of nearly \$1.1 billion, the facility, located in New Orleans, represents a major state asset located in the coastal zone. The state commonly purchases insurance through Arthur J. Gallagher and Co., one of the largest insurance brokers in the world.⁵¹ The state approached Arthur J. Gallagher and Co. about insuring the new medical facility and was presented with higher than expected premium costs.⁵² In constructing the University Medical Center, the state had invested in a number of risk-reducing adaptations, such as hardening the exterior to withstand projectiles cause by high winds.⁵³ The initial premium estimates did not account for the state or the city’s efforts to mitigate risk.⁵⁴ The state was able to meet with representatives from Arthur J. Gallagher and Co. and call attention to these design innovations.⁵⁵ In response, Arthur J. Gallagher and Co. reassessed the risk of loss and adjusted premiums down, while increasing coverage limits.⁵⁶

A more troubling inverse of Louisiana’s experience can be found in Illinois. In May of 2014, a group of subsidiaries of Famers Insurance Company filed a class-action lawsuit against several Chicago area communities.⁵⁷ The insurers alleged that the communities had not done enough to prepare for rain-induced flooding, which the communities should have anticipated as a result of climate change.⁵⁸ The insurers sought reimbursement from the municipalities for claims it had

⁵⁰ Id. at 7.

⁵¹ LA. OFFICE OF RISK MGMT., COMMERCIAL INSURANCE PLACEMENT REPORT AND FINANCIAL ANALYSIS 3 (2016), [http://www.doa.la.gov/orm/PDF/Commercial%20Insurance%20Placement%20Report%20\(FY2016\).pdf](http://www.doa.la.gov/orm/PDF/Commercial%20Insurance%20Placement%20Report%20(FY2016).pdf).

⁵² Id. at 4.

⁵³ Id. at 9.

⁵⁴ Id. at 4.

⁵⁵ Id.

⁵⁶ Id.

⁵⁷ Ill. Farmers Ins. Co. v. Metro. Water Reclamation Dist. of Greater Chi., No. 2014-CH-06608 (Ill. Cir. Ct. dismissed June 4, 2014), http://www.arnoldporter.com/public_document.cfm?id=23667&key=18H3.

⁵⁸ Complaint at 14, Ill. Farmers Ins. Co. v. Metro Water Reclamation Dist. of Greater Chi., No. 140416 (N.D. Ill. May 2, 2014), <http://www.rff.org/files/wordpress/2014/05/Chicago-Flood-Insurance-Suit-.pdf>.

paid which, the insurers believed, could have been avoided with community-level risk mitigation.⁵⁹ The lawsuits were apparently intended to be mostly symbolic, as they were withdrawn shortly after filing.⁶⁰ On withdrawing, Farmers claimed the suits had the desired effect by drawing the defendant's attention to the important issues and that it "expected its policyholders' interests would be protected by the local governments going forward."⁶¹ Farmers also stated that it "hopes to continue the constructive conversations with the cities and counties to build stronger, safer communities."⁶² These two examples indicate how insurers might be more receptive to considering risk mitigation, rewarding those who actively adapt, and punishing actors who fail to mitigate risk.

c. Crop Insurance

While flood insurance receives the lion's share of attention in public discourse, it is not the only federally subsidized insurance program that affects Louisiana. Federal crop insurance provides critical support for the state's agricultural sector. Federal crop insurance, administered through the U.S. Department of Agriculture (USDA), protects farmers from losses caused by disasters like flood and drought, as well as pest infestations and low market prices.⁶³ The USDA sets premium prices and private insurance companies sell and service the policies.⁶⁴ The USDA provides direct premium subsidies, paying up to 60% of premium costs for some policyholders.⁶⁵ It also acts as a reinsurer, covering losses for private companies when payouts exceed total premiums.⁶⁶ Because crop insurance rates are required to be actuarially sound and include a reserve margin, and because subsidies are paid from appropriations, the program does not face the same solvency issues as the NFIP.⁶⁷ Still, it presents a significant expense for the Federal Government. According to the Congressional Budget Office, federal crop insurance spending

⁵⁹ Id. at 2-3, 50.

⁶⁰ Robert McCoppin, *Insurance Company Drops Suits over Chicago-Area Flooding*, CHI. TRIB. (June 3, 2014), www.chicagotribune.com/news/local/breaking/chi-chicago-flooding-insurance-lawsuit-20140603-story.html.

⁶¹ Id.

⁶² Id.

⁶³ See Chad G. Marzen, *Crop Insurance Bad Faith: Protection for America's Farmers*, 46 CREIGHTON L. REV. 619, 621 (2013).

⁶⁴ NATURAL RES. DEF. COUNCIL, COVERING CROPS: HOW FEDERAL CROP INSURANCE PROGRAM REFORMS CAN REDUCE COSTS, EMPOWER FARMERS, AND PROTECT NATURAL RESOURCES 2 (Dec. 2017), <https://www.nrdc.org/sites/default/files/federal-crop-insurance-program-reforms-ip.pdf>.

⁶⁵ Id.

⁶⁶ Id.

⁶⁷ See *Frequently Asked Questions: Crop Insurance Basics*, RISK MGMT. AGENCY, U.S. DEP'T OF AGRIC. (Aug. 14, 2008), <http://www.rma.usda.gov/help/faq/basic.html>.

will total approximately \$77 billion over the next decade.⁶⁸ As with the NFIP, there has been congressional interest in reducing the federal crop insurance program's burden on taxpayers. The Trump administration's 2017 budget proposal included a 36% cut in in the federal crop insurance program over the next decade.⁶⁹ The CBO recommended, among other things, reducing the federal subsidy to 47% of premium costs.⁷⁰ The GAO recommended that administrators of federal crop insurance take steps to actively incentivize policyholders to mitigate risk.⁷¹ In spite of this, crop insurance remains a popular program. The Department of Agriculture remains staunchly against any cuts to the program, instead hoping for expanded access to crop insurance for farmers.⁷² The logic behind this push is that the crop insurance program allows for innovation and growth in the American agriculture industry, and cuts to the program would have substantial negative impacts on farmers across the country. However, if losses continue to exceed premiums, the program may be more easily cast in a profitless light.

In Louisiana, the four biggest crops by acreage are corn, rice, soybeans, and sugarcane, with 2,687,000 acres under cultivation.⁷³ Of those, over 98%, or 2,644,056 acres, carry crop insurance.⁷⁴ Climate-induced disruptions to production have increased nationwide over the last 40 years, and such disruptions are projected to continue to increase as precipitation extremes (drought or flood) intensify over the next 25 years. In 2015 and 2016, insured losses in Louisiana exceeded gross premiums, meaning that premium increases will likely be required to keep the program actuarially sound.⁷⁵ If extreme weather continues to drive premiums up and the federal government reduces the percentage of premium costs it subsidizes, farmers could face substantial increases in insurance expenses. That would affect the profit margins of virtually every agricultural concern in Louisiana.

⁶⁸ CONG. BUDGET OFFICE, OPTIONS TO REDUCE THE BUDGETARY COSTS OF THE FEDERAL CROP INSURANCE PROGRAM 18 (2017), <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53375-federalcropinsuranceprogram.pdf>.

⁶⁹ EXEC. OFFICE OF THE PRESIDENT OF THE U.S., OFFICE OF MANAGEMENT AND BUDGET, BUDGET OF THE U.S. GOVERNMENT 33, <https://www.whitehouse.gov/wp-content/uploads/2017/11/budget.pdf>.

⁷⁰ CONG. BUDGET OFFICE, OPTIONS TO REDUCE THE BUDGETARY COSTS OF THE FEDERAL CROP INSURANCE PROGRAM 21 (2017), <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53375-federalcropinsuranceprogram.pdf>.

⁷¹ U.S. GOV'T ACCOUNT. OFFICE, CLIMATE CHANGE: BETTER MANAGEMENT OF EXPOSURE TO POTENTIAL FUTURE LOSSES IS NEEDED FOR FEDERAL FLOOD AND CROP INSURANCE 31 (2014).

⁷² USDA, 2018 FARM BILL & LEGISLATIVE PRINCIPLES (2018).

⁷³ USDA RISK MGMT. AGENCY, LOUISIANA CROP INSURANCE (2017), <https://www.rma.usda.gov/pubs/2017/stateprofiles/louisiana16.pdf>.

⁷⁴ Id.

⁷⁵ Id.

III. CONCLUSION

Insurance is a necessary expense for many in South Louisiana. For farmers and businesses, lenders often require a policy to protect their security interest. Similarly, homeowners with federally backed mortgages for properties in Special Flood Hazard Areas are required to purchase flood insurance. Even when not obligated, many rely on flood and other hazard insurance to defray risk and secure peace of mind. If the Federal Government moves to reduce taxpayer burden and reduce its liability exposure, it will require an increase in premiums, a reduction in subsidies, and likely a shift towards private flood insurance. For their part, private insurers are reevaluating and refining their risk assessment models to account for the effects of climate change. There are strong indications that the industry as a whole might take a more active role in encouraging and incentivizing adaptation to mitigate risk.

For homeowners, businesses, farmers, and governments, the cost of insurance has a direct bearing on their ability to exist in coastal Louisiana. For homeowners especially, skyrocketing insurance costs will make property less attractive and thus less valuable, eroding their personal wealth and, taken together, the value of mortgage-backed securities tied to coastal property. Farmers and businesses may lose profitability with higher insurance rates and be forced to shut down or relocate. Municipal and parish governments will also have to deal with the burden of rising insurance costs. More importantly, property devaluation and business relocation will reduce government tax bases, threatening the economic future of coastal communities. For all these actors, working with insurers and the Federal Government to stave off the cascading impacts of rising insurance costs will be crucial for preserving long-term viability.