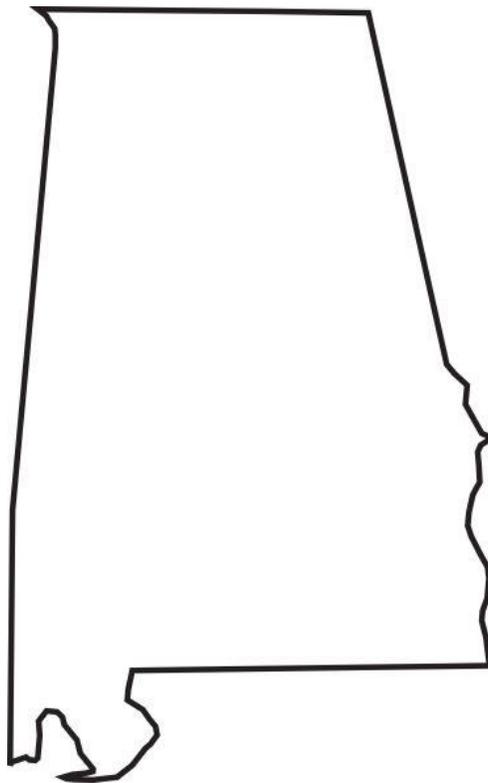


REPORT OF THE COASTAL INSURANCE WORKING GROUP

January 20, 2016



*The Coastal Insurance Working Group, appointed by Governor Robert Bentley,
met from August 31, 2015 through January 15, 2016.*

Members of the Coastal Insurance Working Group

| | | |
|----------------------------|-------------|---|
| Rep. Joe Faust | Co-Convener | House District 94 |
| Sen. Trip Pittman* | Co-Convener | Senate District 32 |
| Sen. Bill Hightower* | | Senate District 35 |
| Earl Janssen | Co-Chairman | Hurricane Homeowners Insurance Initiative |
| Lars Powell, PhD | Co-Chairman | Director, Alabama Center for Insurance Information & Research, University of Alabama |
| Charles Angell, FCAS, MAAA | | Alabama Deputy Commissioner and Chief Actuary, Department of Insurance |
| Jack Burrell | | Fairhope City Council |
| Jerry Doughty | | Hurricane Homeowners Insurance Initiative |
| Dan Hanson | | Hurricane Homeowners Insurance Initiative |
| Charles Kettell | | Hurricane Homeowners Insurance Initiative |
| Michelle Kurtz | | Hurricane Homeowners Insurance Initiative |
| A.C. Leggett | | Hurricane Homeowners Insurance Initiative |
| Beth Marietta Lyons | | Lyons Law Firm |
| Cathy Odom | | Hurricane Homeowners Insurance Initiative |
| Steve Simkins | | Counsel, State Farm Insurance Company |
| Patti Van Iderstine | | Hurricane Homeowners Insurance Initiative |
| Suzanna Willis* | | Policy Advisor, Office of Governor Robert Bentley |

**Served the Working Group as an observer only and did not take a position on any of the recommendations.*

CIWG members met two days a week for four months, a total of 26 meetings.

The Working Group appreciates input provided by the following companies, groups, and individuals:¹

Aon Benfield, Demotech, Baldwin County Realtors Association, Mobile County Realtors Association, Alabama Bankers Association, Baldwin County Revenue Commissioner Teddy Faust, Raymond James Financial Advisors, Hand Arendall, LLC, Baldwin County Commission Attorney David Connor, Alabama Association of Independent Insurance Agents and Brokers, Alabama Insurance Underwriting Association, Alabama Department of Revenue, Consumer Federation of America, and Policyholders United.

¹ Any errors or omissions in this report are the sole responsibility of the Working Group.

Executive Summary

Governor Bentley created the Coastal Insurance Working Group (CIWG) in June 2015. He asked members to focus attention on public policy, guidelines, and possible multi-state approaches to address the cost of property insurance along Alabama's Gulf Coast. The CIWG began working in August 2015 and completed this report in January of 2016. The group met diligently for two full days each week during this four-month period.

In this report, we evaluate the problems caused by an increase in coastal wind insurance premiums. We examine this issue in context of its effects on 1) the coastal economy, and 2) its personal effects on the lives of citizens of Baldwin and Mobile counties. We find that the average coastal homeowners insurance premium increased by 137 percent between 2005 and 2015. For some homeowners, the increase was substantially higher. In comparison, upstate premiums increased by 36 percent and the Consumer Price Index increased by 21 percent during the same period. The increase in premium caused a number of homeowners to drop wind coverage from their policies and left many others functionally uninsured due to reduced coverage and deductibles they cannot afford. This leaves our coastal citizens and the state economy vulnerable to the next catastrophic storm.

Executive Summary of Recommendations

- 1. Alabama Coastal Insurance Authority (ACIA)** reduces the cost of capital with post-loss funding. It also reduces operating expenses and taxes. Total premium reduction up to 50%
- 2. The Coastal Band** strategy reduces the cost of capital by expanding the ACIA to multiple states. Reduces the probability of post-loss assessments.
- 3. A federal and state tax exemption** for coastal wind insurance premiums and earnings reduces premiums by up to 10%.
- 4. Funding loss mitigation** efforts and strengthening **building codes** and building code enforcement reduces coastal wind insurance by up to 60%.
- 5. The Premium Adjustment Plan** could decrease coastal wind insurance premiums by limiting the difference between coastal premiums and inland premiums.

We begin our analysis with a discussion of insurance pricing and the components of fair insurance premiums. Then we evaluate the potential to reduce premiums by changing each component. The largest component of the cost of coastal wind insurance is the cost of capital. Therefore, we allocate a large portion of our time and efforts on solutions to address this component. These solutions include post-loss assessment funding and broadening the geographic diversification of exposures. Next, we discuss the potential for loss mitigation activities to decrease insurance premiums. We also suggest public and private changes that would decrease the cost of insurance by decreasing the tax burden on insurance consumers.

The combination of three strategies (post-event assessment funding, diversification, and tax relief) can decrease coastal wind insurance premiums by up to 50 percent with very little upfront

cost. Importantly, this saving is created by transferring the cost of capital from private insurers to policyholders via our proposed Alabama Coastal Insurance Authority. Implementation of the Alabama Coastal Insurance Authority leads naturally to a multistate reinsurance structure which can then lead to a single catastrophic wind insurance solution for coastal communities in multiple states.

In addition, loss mitigation can reduce wind insurance premiums by 20 to 60 percent. It is not exactly clear how much overlap exists between results of these strategies; they are neither mutually exclusive, nor additive. The combination of these strategies could reduce insurance premiums by more than 50 percent.

Finally, although group members are deeply divided on the issue, a majority of the CIWG voted to propose the Premium Adjustment Plan. In the Premium Adjustment Plan, insurance rates may not differ by more than 50 percent across geographic regions of Alabama. Current estimates suggest this could decrease coastal insurance premiums by 30 to 50 percent while increasing inland premiums by 10 to 15 percent.

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Governor's Charge to the Working Group

OFFICE OF THE GOVERNOR

ROBERT BENTLEY
GOVERNOR



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STATE OF ALABAMA

June 19, 2015

The Honorable Trip Pittman
P. O. Box 1812
Daphne, Alabama 36526

The Honorable Joe Faust
1100 Fairhope Avenue
Fairhope, Alabama 36532

Dear Senator Pittman and Representative Faust:

As I committed to do, I am forming the Coastal Insurance Work Group. Per your recommendation to me, I would like the following people to serve:

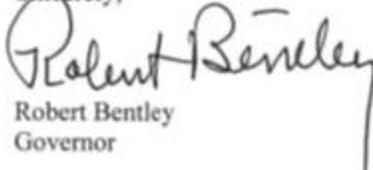
Senator Trip Pittman, co-convener; Representative Joe Faust, co-convener; Senator Bill Hightower; Dr. Lawrence S. "Lars" Powell, Director of the Alabama Center for Insurance Information and Research; Steve Simpkins, industry representative; Suzanna Willis, Governor's Office; Charles Angell, Alabama Department of Insurance Deputy Commissioner; Jack Burrell, Fairhope City Councilman; Beth Lyons, City of Mobile representative; The Rev. Jerry Bergman; Jerry Doughty; Dan Hanson; Earl Janssen; Charles Kettell; Michelle Kurtz; A.C. Leggett; and Cathy Odom.

Senator Pittman shall name the first meeting date, time and location. The group shall elect two co-chairmen at its first meeting.

Because the insurance industry, the Alabama Department of Insurance and the Alabama Insurance Information Research Center ably champion mitigation and public education strategies, this Work Group should focus on policy, guidelines, possible multi-state framework and next steps that promote justifiable homeowner and commercial property insurance along Alabama's Gulf Coast.

I would like the recommendations to be delivered to me in the form of a report by December 31, 2015.

Sincerely,


Robert Bentley
Governor

Organization of Report

The Coastal Insurance Working Group was created as a diverse group with a unified goal. Our efforts to be inclusive and open to new ideas brought about the need for a special report format. In each section of this report, individual members of the Working Group can agree or disagree with the contents.

Description of Problem

Cost of Coastal Wind Insurance

In the aftermath of Hurricanes Ivan and Katrina, rates along the Alabama Gulf Coast rose sharply. Many homeowners along the coast saw increases in excess of 100 percent over a short period of time following the storm. Some increased by as much as 500 percent.

Prior to 2004, insurers used historical data to set wind insurance rates in Alabama. During the fourteen-month period from August 2004 to October 2005 the United States experienced seven of the ten most expensive natural disasters in history (only two affected Alabama).² Following these large loss events wind premiums would have increased substantially in some states (such as Mississippi) had the ratemaking methodology using historical data continued.

Instead, insurance companies and reinsurance companies increased reliance on evolving and divergent hurricane catastrophe models to estimate expected losses from hurricanes in Alabama and other gulf coast states. In Alabama, hurricane catastrophe models produce significantly larger estimates of expected losses and extreme loss events than previous ratemaking methods that only considered prior loss data³; therefore, the cost of coastal property insurance increased substantially.

It is difficult to quantify the increase in homeowners insurance premiums in Mobile and Baldwin counties since 2005. While data collected through the Clarity Act were intended to address this question, several attributes of these data appear to mask the increase in premium. First, following the increase in premium, some residents dropped their wind insurance. It is not possible to estimate the number of homeowners who dropped wind coverage with currently available data.⁴ Second, many residents of Baldwin and Mobile counties purchase separate policies for wind and all other perils. This inflates the number of policies, thereby decreasing the average price per policy in the Clarity Act data. Third, Clarity Act data include renters and condos, not just homes, and premiums for renters and condos may have changed differently over the years compared to homeowners premiums. Finally, many homeowners that still purchase wind insurance have decreased the amount and extent of coverage they buy, thus further

² Guy Carpenter, 2015, "Ten-Year Retrospective of the 2004 and 2005 Atlantic Hurricane Seasons," accessed 11/27/2015. The 2004 and 2005 hurricane seasons included named storms Charley, Frances, Ivan, Jeanne, Katrina, Rita, and Wilma. Ivan and Katrina caused damage in Alabama.

³ In Louisiana and Mississippi, hurricane models currently lead to lower rates than methods relying on historical loss data.

⁴ See the section titled Suggested Future Research for plans to address this information deficit.

reducing the average premium per policy as indicated in the Mobile and Baldwin counties' Clarity Act data. Policies are available for a reduced premium because they offer substantially less coverage than policies offered in the remainder of the state. Homeowners in the remainder of state have not typically reduced the amount or extent of coverage they purchase, thus distorting the comparison of coastal and upstate average premiums per policy.

Our attempt to measure the average change in premium suggests from 2005 until 2015, the average homeowners insurance premium in Mobile and Baldwin counties increased by 137 percent. For example, if premium in 2005 was \$1,000, premium in 2015 would be \$2,370. During the same period, inland county premiums increased by 36 percent and the Consumer Price Index (CPI) increased by 21 percent. While this represents the average premium increase, some policyholders in Mobile and Baldwin counties experienced increases substantially greater than the average.

A majority of Mobile-Baldwin members of the CIWG experienced 200 percent or greater increases.

Figure 1 demonstrates the change in premiums from 2005 to 2015. To estimate the increase in coastal homeowners insurance premium we began with the average premium differential between coastal policies and inland policies from the Clarity Act (2012) for data year 2005. In 2005, premiums had not increased substantially from pre-storm levels and policies were not written to exclude coverage from the wind peril. In 2005, policies in Mobile and Baldwin counties were 36 percent more than inland policies, offsetting the 2005-2015 inland price increase. Therefore, comparing current inland premiums to current coastal premiums gives an unbiased estimate of the change in coastal premiums from 2005 through the present.

Specifically, we analyze the premium for identical homes with identical coverage in five coastal zip codes and nineteen inland zip codes.⁵ The premium comparison feature on the Alabama Department of Insurance website provides the coastal-to-inland differential for seventeen companies.⁶ The two subject houses in this premium comparison have replacement costs of \$150,000 and \$300,000. We calculate the average premium across companies for each house in each area (coastal and inland), and then divide the difference between coastal average and inland average by the inland average. Finally, we take the average of the two results.

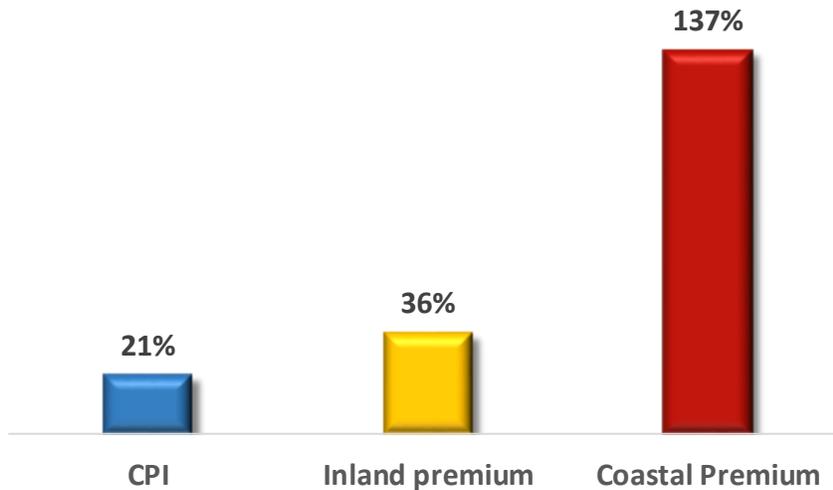
⁵ Coastal zip codes include: Bay Minette (36507), Daphne (36526), Foley (36535), Gulf Shores (36542), and Mobile (36609). Inland zip codes include: Alexander City (35010), Anniston (36207), Auburn (36832), Birmingham (35242), Boaz (35956), Clanton (35045), Cullman (35055), Decatur (35603), Eufaula (36027), Florence (35630), Ft Payne (35967), Grove Hill (36451), Huntsville (35801), Jasper (35504), Montgomery (36117), Ozark (36360), Russellville (35654), Troy (36081), and Tuscaloosa (35401)

⁶ These seventeen insurance companies represent 46 percent of the homeowners insurance market by premium in Alabama. Four additional companies report premiums that are incomplete or inconsistent with actual prices charged at the coast.

$$\frac{\text{coastal average} - \text{inland average}}{\text{inland average}}$$

| | | |
|-----------|---------------------------------------|-----------------------------------|
| \$150,000 | $\frac{2,453 - 1,093}{1,093} = 124\%$ | $\frac{124\% + 149\%}{2} = 137\%$ |
| \$300,000 | $\frac{4,597 - 1,845}{1,845} = 149\%$ | |

Figure 1: Changes in Cost from 2005 to 2015



Sources: Clarity Act data at <https://aldoi.gov/PICAWeb/Account/CompanyInfo.aspx>, homeowners rate comparison at <http://www.aldoi.gov/ComparePremiums/HomeRates.aspx>, and Bureau of Labor Statistics www.bls.gov

The abrupt increase in premiums left some coastal consumers unable to afford wind insurance. In addition, we believe the number of homeowners without wind insurance has increased substantially, which could put a strain on community resources and the coastal economy when the next hurricane hits. Beyond the individual financial hardships imposed on coastal residents, the increased cost of insurance affects Alabama’s economy and tax revenues.

While premiums increased, the deductibles required by insurance companies and/or chosen by consumers increased. For many coastal residents, deductibles on the coast went from fixed amounts, such as \$500 or \$1,000 per loss, to percentages of policy limit, usually 2 to 5 percent. A homeowner with a typical \$150,000 policy saw their deductibles increase to \$3,000 and even \$7,500. This represents abrupt increases of 200 to 1,400 percent in deductibles. Therefore, in

addition to paying higher premiums, policyholders in Mobile and Baldwin counties must pay substantially more out of pocket cost after a loss than policyholders in the rest of the state.

In addition to higher wind insurance costs, many consumers in Mobile and Baldwin counties have been charged significantly more for non-wind coverage (fire, theft, liability) even though Clarity Law data demonstrate their losses are no higher than the rest of the state.⁷ For example in 2006, Earl Janssen, a member of the CIWG, paid \$950 for full coverage before changes in coastal premiums were made. An insurance quote from the same company for non-wind coverage only was \$1,200, an increase despite dropping all wind. The wind portion of coastal premiums is approximately 70 percent of homeowners premiums; therefore this single-year rate increase represents a net 321-percent difference in price for a policy that does not cover hurricane losses. It is difficult to conceive of justification for such a rate increase, suggesting that the coastal Alabama pricing system used for nonwind property insurance was highly dysfunctional following the 2005 storm season.

In the face of rising premiums, a number of consumers began choosing policies that pay claims based on Actual Cash Value (ACV) to reduce the cost of insurance.⁸ When a home is covered by an ACV policy, depreciation is deducted from the replacement cost before the amount of a claim is determined. These changes in coverage leave a section of our Mobile and Baldwin counties population “functionally uninsured” for wind damage. This means the claim payments following a large loss would not be enough for policyholders to rebuild their homes, thus requiring large out-of-pocket costs for the homeowner. Homeowners upstate do not typically purchase ACV policies or deductibles greater than one percent since their cost of insurance is much more affordable, so this “functionally uninsured” problem does not generally exist upstate.

Consider, for example, the following scenario which is quite common among Mobile and Baldwin county residents. A home with replacement value equal to \$200,000 is covered by a wind insurance policy with a 2 percent deductible and an ACV valuation clause. The roof of the home has a thirty-year useful life and was installed fifteen years ago; therefore, half of its value has depreciated. As displayed in Figure 2, if a storm causes \$10,000 damage to the roof of this home, the insurance policy will only provide \$1,000 in payment of the claim. If the homeowner cannot pay \$9,000 out of pocket to repair the home, it is likely the home will no longer meet underwriting requirements and be non-renewed by the insurer. Without insurance, lenders may foreclose on the mortgage.

⁷ This is because non-wind rates are not established separately from wind rates by most insurers, so non-wind rates automatically received the same increases filed by insurers for wind rates. The Department of Insurance has issued a regulation effective in 2018 to correct this.

⁸ While an ACV policy may not provide adequate coverage for a policyholder to rebuild her home following a large loss, it does maintain compliance with home mortgage covenants requiring borrowers to purchase property insurance.

Figure 2: Example of Functionally Uninsured



- Replacement cost of home = \$200,000
 - Cost to repair roof = \$10,000
 - Depreciation = $\frac{1}{2} \times \$10,000 = \$5,000$
 - Deductible = $2\% \times \$200,000 = \$4,000$
 - Claim payment = $\$10,000 - \$5,000 - \$4,000 = \$1,000$
 - Policyholder responsibility = \$9,000
-

Lack of insurance has an adverse effect on resiliency of Mobile and Baldwin counties. People and businesses without insurance have less incentive to stay and rebuild following a catastrophic event, thus making it difficult for employers to maintain their employee base or for the counties to attract new employers. This would have a devastating effect on the local and state economy as described further in the following section.

The problem of increasing coastal property insurance premiums is not unique to Alabama. During the same period, insurance premiums and deductibles increased in many other coastal areas including Louisiana, Mississippi, North Carolina, South Carolina, and Texas. As a result, some states followed Alabama's lead passing a Clarity Law. Grassroots groups have networked in several Gulf and Atlantic states. Ha (2015) reports on increasing consumer concerns in Massachusetts. This suggests the potential for regional or broader strategies as part of a solution.⁹

The Coastal Economy

Mobile and Baldwin counties play a significant role in the Alabama economy through state revenues generated by the travel industry, seafood industry, agricultural industry, the Port, the oil and gas fund and most recently the manufacturing industry. A large catastrophic event in Mobile and Baldwin counties would not only have devastating effects on the citizens of these counties, but would have ripple effects statewide. In a best case scenario, there would be a temporary loss of revenues to the state general fund due to the temporary loss of travel related income, agricultural income, oil and gas revenues and economic assistance. In a worst case

⁹ Ha, Young, 2015. "Mass. Consumer Comments Highlight Concerns Over Home Insurance Rates," December 30, 2015, <http://www.insurancejournal.com/news/east/2015/12/30/393240.htm>

scenario, extended loss of employees, the extended shut down of entire industries and the potential for large uninsured losses could cripple these two counties and the state economy for years.

Tourism:

According to a 2015 report by the Alabama Tourism Department, Mobile and Baldwin counties currently account for nearly 40 percent of all state tax lodging revenues from travel related activities. In addition, Mobile and Baldwin counties account for approximately 37 percent of all travel related employment in the state—nearly 61,924 are employed directly or indirectly in Mobile (15,604) and Baldwin (46,320) counties. Tourism revenue in Alabama has increased from just over \$7 billion in 2005, to nearly \$12 billion in 2014.

The Department of Tourism projects that for every \$1 spent in tourism, roughly \$0.36 is retained by the Citizens of Alabama either directly, or indirectly in earnings (over \$4 billion), in addition to the roughly \$738 million generated in local and state taxes. That includes over \$500 million in State revenue.

According to U.S. Census projections Baldwin County had a population of 200,000 in 2014 and Mobile County a population of roughly 415,000. It is not clear precisely how many residents of Baldwin County that are employed work directly, or indirectly, in the travel industry but based upon census data, the percentage is significant. While Mobile County plays a smaller role in travel related employment and revenue, it still sits third to Baldwin and Jefferson counties in travel revenue and jobs. Together, while Mobile and Baldwin counties amount to less than 15 percent of the Alabama population, they account for nearly 40 percent of the travel related revenues and jobs.

This is significant as studies performed in the aftermath of Hurricane Katrina and Ike, as well as the BP oil spill, show a significant percentage of travel related revenue will be lost temporarily in a post-catastrophe environment. In addition, without adequate housing, or jobs, displaced workers will often not return for many months or even years after a storm, creating significant challenges in getting workers for hotels, condominiums and restaurants that are vital to the travel industry.

Galveston Island off the coast of Texas, the Mississippi Gulf Coast and the City of New Orleans spent years in recovery mode from the damage resulting from Hurricanes Ike and Katrina. Homes and businesses still remain vacant, and lots remain bare from the devastation wrought by these hurricanes. While New Orleans recovered more quickly due to little damage in its central business district from Hurricane Katrina, both the Mississippi Gulf Coast and Galveston Island took years to return to pre storm tourism levels.

Oil and Gas Trust Fund:

In 1978, Mobil Oil Company began drilling into Norphlet Sandstone along the south end of Mobile Bay and discovered the largest natural gas field east of the Mississippi, the Lower Mobile Bay - Mary Ann Field. The discovery formed the core of offshore development that eventually located 6 trillion cubic feet of reserves. As a result of this discovery, in 1982, the State of Alabama created a fund to collect tax revenues and fees generated by newly found natural gas deposits off of Mobile and Baldwin counties. At its height in 2006, these oil and gas proceeds generated over \$360 million annually for the State of Alabama Oil and Gas Trust Fund. This amount has decreased in recent years now generating less than \$100 million annually. The current balance as of 2014 was slightly less than \$3 billion.

Hundreds of Mobile and Baldwin county residents are employed in the oil and gas industry and rely upon this industry to support their families. However, countless citizens statewide rely upon this production for a multitude of services across the state, from education to public infrastructure to statewide budget shortfalls.

Despite the vast majority of the oil and gas funds revenues being generated in lower Mobile Bay, proportionally few of the funds generated have been used for projects in Mobile and Baldwin counties.

Expansion of Mobile and Baldwin Counties:

Thousands of citizens in Mobile and Baldwin counties work to harvest and process seafood. In addition, Mobile and Baldwin counties play a large role in the state's overall agricultural scene. From peanuts to seafood to cattle to forestry, according to the Alabama Agribusiness Coop, Mobile and Baldwin County agricultural sector produces \$336 million in indirect business taxes, and 72,672 jobs.

Recently, Mobile County has also played a significant role in Alabama's desire to bring large manufacturers to the State, and with them full time jobs. In 2007, the State of Alabama provided a steel manufacturer, ThyssenKrupp, over \$1 billion in economic development incentives to locate in Mobile County. In 2012, the State lured Airbus into Mobile County providing over \$150 million of incentives for their new facility. These incentive packages were two of the largest three economic development packages in recent years and were a significant statewide investment in Mobile County.

These two companies are just two examples. From aeronautics to shipbuilding to steel manufacturing, Mobile County has been the choice of manufacturers across the world in recent years. In 2015, *Forbes.com* ranked Mobile first among Mid-sized Cities for New Manufacturing Growth. CNN money, MSNBC, Bloomberg and many other publications have awarded numerous accolades on Mobile since 2014 as a future manufacturing hub, and a city destined for economic growth.

Finally, one cannot discuss Mobile and Baldwin counties without discussing the Mobile Port. Unique to these two counties, the Port brings goods and jobs not just to locals but for the entire state and beyond. According to the Port authority, the economic value of the port exceeds \$18 billion and provides over \$500 million in taxes to state and local governments.

Like the travel industry and oil industry, a large catastrophe will cause significant disruption to the agricultural industry, the port and the manufacturers in this area.

Uninsured and Functionally Uninsured:

Many federally backed mortgages require the purchase of flood insurance and homeowners insurance. However, individuals who own their home outright (as many as 50 percent of single family homeowners in these two counties) may or may not choose to insure their homes. Currently, no concrete data exists to show the extent of uninsured properties in Mobile and Baldwin counties. However, stories of homeowners rates increasing 300 to 500 percent are rampant among coastal residents. For example, Stan Virden is a retired Navy captain and Vietnam veteran who lived in Baldwin County. His was a “fivefold increase in premium payments.”¹⁰ The increase in premium was a contributing factor in Stan’s decision to borrow against the equity in his home, and, eventually, move out of Alabama. Ruby Hanson, a 91-year-old widow living in Baldwin County – the wife of a WWII veteran who has never made a homeowner’s claim – experienced a similar 500 percent increase. Edna Dixon, vice chairman of the National Blind Veterans Association, experienced a 300 percent increase even though she lives in Stockton, a rural community approximately fifty miles inland from the beaches. After her husband died in 2015, she shopped around and found a policy for \$2,600, still more than double her original price. Thus, the problem is not confined to wealthy owners of coastal beach houses.

Due to the premium rate increases described above, a substantial number of homeowners and business owners chose to, or were forced to, drop their wind insurance, creating an uninsured problem that will only be exposed after a major storm. For example, two members of our CIWG have dropped their wind insurance coverage.

Good Samaritan Sanctuary, a church in a low income minority community in Baldwin County, has dropped its wind coverage. So has the widely-known social service agency, Ecumenical Ministries. CIWG co-chairman Earl Janssen attends Grace Lutheran Church. It has dropped its wind coverage.

Finally, the high cost of homeowners insurance has stretched those on fixed incomes and low to moderate income families to the point that they are living paycheck to paycheck and looking for creative ways to make insurance and other related payments.

Sherry Weaver is the former Chairman of the Habitat for Humanity of Baldwin County Family Selection Committee. She wrote on the HHII website, “Lest anyone have the mistaken impression that the current insurance plight only affects ‘rich people in the coast,’ I would like to explain how

¹⁰ Quoted lines were posted to the HHII website, www.hhii.us.

it has impacted Habitat for Humanity.” She explained that “because of the simultaneous and disproportionate increase in taxes and insurance, we can no longer extend our housing program to those at the lowest end of the income scale.” Previously, she wrote, “a typical Habitat mortgage payment would be approximately \$250. Now, the payments range between \$350 and \$500.” Families living on “minimum wage or who are living on disability, can no longer afford our payments.” Sandy Folan, the current director of Baldwin Habitat, affirmed that Sherry’s observations are true today.

CIWG members are concerned about more than just premiums. As stated above, deductibles on many policies have significantly increased for windstorm coverage over the last ten years. While customers across other parts of the state may be responsible for \$500 to 1 percent of the value of their home before insurance coverage applies, homeowners in Baldwin and Mobile counties are often responsible for damage up to 5 percent of their home replacement value before receiving any insurance proceeds. Five percent of the median home value in Alabama is \$6,100. The reasons for these higher deductibles include affordability and insurer underwriting requirements.

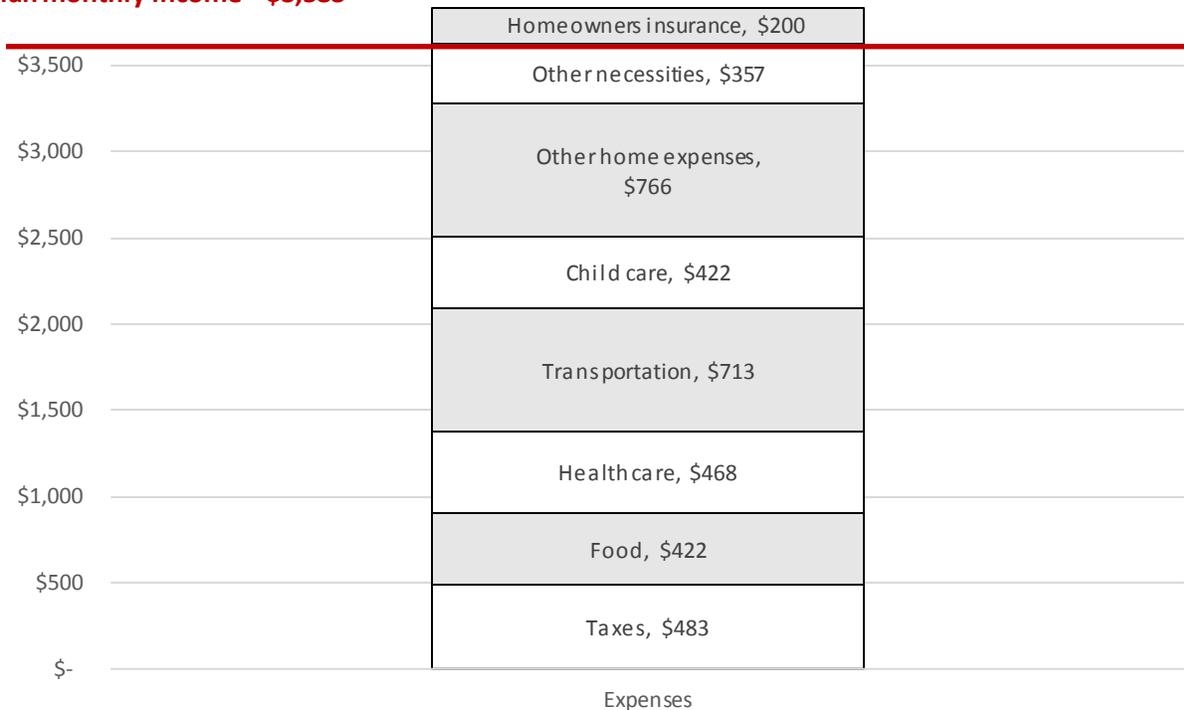
Numerous studies show that a large percentage of the U.S. population are simply incapable of paying such large deductibles. A recent gobankingrates.com study¹¹ reports more than one half of the U.S. population has no savings for emergency expenses. This study confirms many previous reports that made similar findings.

Figure 2 shows a typical monthly budget for the median-income employee in Mobile County. This chart demonstrates why the increase in premiums after the 2004-2005 storms were so impactful on coastal residents, as well as why the state should be concerned about the possibility of significant post-storm aid.

¹¹ Elyssa Kirkham, October 5, 2015, “62% of Americans Have Under \$1,000 in Savings, Survey Finds” accessed 1/18/2016 from www.gobankingrates.com/savings-account/62-percent-americans-under-1000-savings-survey-finds/

Figure 3: Homeowner Expenses as Percentage of Median Household Income – Mobile County, AL

Median monthly income = \$3,583



Sources: U.S. Bureau of Labor Statistics, U. S. Department of Agriculture, U.S. Census, and authors' calculations

While insuring one's home may be considered a personal choice, the effects of widespread uninsured or underinsured homeowners could be devastating financially to the State in a post-catastrophe environment, not just for these counties but to the State of Alabama as a whole. Individuals who can't afford insurance and in turn don't buy it, or those who can't afford to pay for their portion of the damages after a storm, require significantly more aid after a storm than those who are adequately covered. While this amount of aid is unknown at this time, these costs are historically paid through financial assistance programs provided by the State of Alabama and by the Federal Emergency Management Agency.

According to census data for Mobile and Baldwin counties, as of 2014 there are approximately 107,000 housing units in Baldwin County, and 181,000 housing units in Mobile County. Of those housing units, approximately 197,000 are single family homes, with the remainder being multi-family housing units. According to 2012 Clarity Act data, there were approximately 153,000 wind policies in Mobile and Baldwin counties. Assuming the surplus lines market writes half of the difference, this still leaves over 20,000 homes in these counties without wind coverage, and ultimately in need of significant financial assistance post catastrophe. The vast majority of policies in Mobile and Baldwin counties carry hurricane deductibles between 2 and 10 percent.

Conclusion:

The viability of Mobile and Baldwin counties, their tax revenues, and their employment bases cannot be underestimated. Efforts should be undertaken to ensure that State investments in this region are not compromised by a major hurricane, or other storm. While no data or studies could be found that would show the actual projected loss in state revenue from a large hurricane making landfall in these counties, data from other communities suggest it could be significant and last for extended periods of time, ranging from tens of millions to billions in lost revenue. Beach tourism, agriculture, seafood, ship, airplane and steel manufacturing, and shipping through the port, are all industries that are location-specific and highly vulnerable to disruption from a major hurricane. Thus, reducing the impact of such a storm in a logical and cost effective manner is vital to mitigating future losses.

Economic growth and expansion of state revenues require affordable homeownership and the ability to maintain a workforce both before and after a catastrophe. For a worker who currently earns \$40,000 a year (demographics show that this is 66 percent of the workforce in Mobile County), paying a disproportionate percentage of their salary for homeowners insurance is a substantial deterrent to owning and/or properly maintaining one's home. Perhaps, more importantly it demonstrates a significant likelihood that this family will be unable to afford the cost of covering a disproportionately-high deductible or quickly returning after a storm, exposing the state to a second statewide financial catastrophe in the aftermath of a hurricane.

For these reasons, the members of CIWG suggest the following potential solutions to resolve this crisis for the individuals home and business owner, and as a means to protect state revenues and investments that derive within Mobile and Baldwin counties.

Conceptual Solutions

Evaluating components of the cost of catastrophe insurance is an instructive first step toward a solution. The cost of insurance includes four components. Figure 4 demonstrates the approximate distribution of costs across categories for coastal wind insurance. The first component is expected losses incurred under the terms of the contract (25 percent in the Figure). The second is expected administrative expenses incurred in providing insurance. These include insurers' general operating expenses (e.g. salaries, office space, technology, etc.), sales expenses, and taxes. In Figure 4, this category includes operating expenses (20 percent), state premium taxes (3.6 percent) and federal income taxes (6.4 percent). The third is investment returns earned between the time insurers receive premiums and pay losses and expenses. In Figure 4, we subtract one half of a cent, recognizing the unusually low interest rate environment. The fourth component is a fair return on capital to compensate insurers for bearing risk.¹² In Figure 4, this category includes cost of capital / reinsurance (40 percent) and profit (5 percent).

¹² See Harrington and Niehaus, 2004, Risk Management and Insurance, 2nd Edition. A fair rate of return on capital is one that offers investors a competitive return so that they will want to invest in the insurer rather than elsewhere.

Figure 4: Components of Coastal Wind Insurance Premium



Among these components, we can potentially affect or manipulate all except for investment returns. However, we should note that the historically low interest rate environment increases insurance premiums. If interest rates increase in the future, the cost of insurance should decrease slightly.

The Working Group has identified and discussed potential plans that could decrease the cost of insurance by decreasing expected losses, decreasing expenses, and decreasing the cost of capital or reinsurance expense. In addition, we have discussed establishing similar insurance rates across the state to reflect the similarity of historical claims data.

Complex problems, like the cost of coastal wind insurance, rarely have simple solutions. In each case presented below, there are positive and negative characteristics that must be considered. The following analysis is the CIWG's best effort to explain and consider the positive and negative attributes of each proposal such that lawmakers can affect an appropriate solution. Specifically, we evaluate each proposed solution based on potential for premium reduction, cost, implementation, and timing.¹³ Table 1 summarizes each element of the proposed solutions.

¹³Other reports on similar topics have considered additional criteria. For example, the federal government has produced multiple reports on insurance coverage for catastrophic losses. They generally consider the following:

Table 2 evaluates positive and negative aspects of each strategy.

Table 1: Summary of Proposed Solutions¹⁴

| Potential Solution | Premium reduction | Expected cost to state | Implementation | Timing |
|---|--|--|--|---|
| Post-event funding – “Alabama Coastal Insurance Authority” | Initially up to 40% (or more) of wind premium | \$0 | Requires legislation and private funding | Within six to twelve months of passing legislation. |
| Geographic diversification - “Multi-state Coastal Band” | Initially up to 40% (or more) of wind premium | \$0 | Requires Congressional action or legislation in multiple states, or multi-state reinsurance agreements | Estimated as early as 2018 |
| Reducing expected losses – “Loss mitigation” and building codes | 35% to 60% of wind premium | Additional funding would accelerate mitigation | Premium discounts already in place. Building code/enforcement requires legislation. | Depends on level of grant funding and take up and bldg. code statutes |
| Federal and state tax exemption | 5% to 10% of wind premium | \$1.6MM to \$5.4MM | Requires legislation | Could happen in 2016 |
| Premium Adjustment: requiring similar insurance rates across the state | 30-50% in Mobile-Baldwin counties; possibly 11-15% increase inland | \$0 | Requires legislation | Could happen in 2016 |
| By-peril rating | Unknown | \$0 | Consider legislation to codify | Insurers must comply in 2018 |

(1) charging premium rates that reflect the risk of loss, (2) encouraging broad participation, (3) encouraging the private market to provide natural catastrophe insurance, and (4) limiting costs to U.S. taxpayers. See GAO (2008, 2010).

¹⁴ The Governor’s charge to this working group initially exempted loss mitigation and consumer education strategies from consideration. Subsequently, loss mitigation was reintroduced as a potential solution given its enormous potential to provide long-term relief and to complement other strategies.

Table 2: Evaluation of Proposed Strategies

| Strategy | Advantage | Disadvantage |
|-------------------------|--|---|
| ACIA | <ul style="list-style-type: none"> • Large premium savings. • Lower deductibles available than currently. • Better coverage (RCV) offered at lower rates than currently in the AIUA. • Relieves insurance industry of financial responsibility for Wind Pool. • Relatively easy to implement administratively. | <ul style="list-style-type: none"> • Possible large homeowners premium assessments, making budgeting difficult for homeowners. • Unknown reaction from admitted and surplus lines markets if ACIA undercuts their rates; could reduce availability. • If ACIA concept fails, may be difficult to bring markets back to AL if they have left. • Once an assessment is charged, it may continue for 20 years. • Possible assessments required against upstate homeowners; unless/until coastal band strategy implemented. |
| Coastal Band | <ul style="list-style-type: none"> • It is possible that homeowners in other states will help pay for losses in Alabama. • Coastal reinsurer concept would not require legislation in any states. • Spread of risk to other states could lower rates for AL coastal homeowners. • Does not affect inland citizens. | <ul style="list-style-type: none"> • It is possible that homeowners in Alabama will help pay for losses in other states. • Political challenges developing solution in multiple states |
| Mitigation | <ul style="list-style-type: none"> • Provides insurance premium discount and actual reduction in damage from hurricanes; lowers out-of-pocket costs within a homeowner's deductible. • Building codes improve community resilience, reducing clean-up costs, # of displaced workers, and business interruption. • Once significant # of homes are mitigated, would improve reinsurance rates for all insurers in Alabama. | <ul style="list-style-type: none"> • Requires \$100's millions to mitigate a significant % of housing stock. • Requires perhaps large out-of-pocket costs for homeowners to mitigate if not eligible for grants. • Increases cost of building or repairing homes that do not meet the new requirements. • Enforcement of building codes requires consumers to pay cost of building permits & communities to staff building inspectors. • Must convince appraisers to reflect cost of mitigation in appraisals so homeowners can obtain sufficient mortgages. |
| Tax Savings | <ul style="list-style-type: none"> • Enables ACIA to accumulate reserves faster so as to lower probability and size of future assessments to homeowners. • Lowers insurance rates. | <ul style="list-style-type: none"> • General Fund loses revenue from premium tax, but may gain some back in additional sales tax. • Mostly dependent on obtaining IRS private letter ruling. |
| Premium Adjustment Plan | <ul style="list-style-type: none"> • Lowers coastal rates. | <ul style="list-style-type: none"> • Raises rates for inland homeowners |

Potential Solution #1: Reducing the Cost of Capital – Conceptual Summary

Despite robust competition and a recent abundance of supply in global reinsurance markets, the cost of capital protecting catastrophe insurance exposures is a substantial portion of premiums. Recall from Figure 4 the cost of capital for coastal wind insurance represents approximately 40 percent of total premium.

The cost of capital for an insurance company is a function of the amount of capital required and uncertainty surrounding expected losses. It represents a fair return on dollars placed at risk in an insurance contract.

For example, assume an insurance company insures a large number of homes in Mobile and Baldwin counties. Assume for these homes that the annual expected loss per home is \$500 and there is a 99 percent probability that total losses will be less than \$10,000 per home. The insurance company must hold \$9,500 per home to be 99 percent certain it will be able to pay all losses incurred during the year. If investors require a 10 percent return to risk their capital against hurricane losses, the cost of capital per policy would be $10\% \times \$9,500 = \950 . In this example, the cost of capital is nearly twice as large as the expected loss. This is not unusual in homeowners insurance.

Two strategies can decrease the cost of capital. First, an insurance entity can replace reinsurance coverage with post-event assessments. Under this strategy, the cost of capital is not paid in years that a loss does not occur. In addition, because the post event loss is known, uncertainty decreases and the required rate of return decreases as well. Second, creating a larger and more geographically diverse risk pool can decrease positive correlation and uncertainty associated with aggregate losses, thereby decreasing the amount of capital required for each policyholder, and the required return charged for capital. While these two strategies are not mutually exclusive, they do increase in complexity when applied in tandem.

Potential Solution 1.1: Alabama Coastal Insurance Authority (Post-Event Funding)

Several states¹⁵ currently employ a post-event assessment strategy to fund their markets of last resort. They decrease the cost of capital by funding a portion of insured losses with post-event assessments. Instead of paying insurance companies and reinsurance companies to assume the risk of hurricanes, special purpose insurance entities in these states commit to borrow money after the loss occurs. The loans are repaid by assessments charged to policyholders¹⁶ after the loss.

Such a strategy has both positive and negative aspects. The primary benefit is that consumers can initially save a large portion of their premiums. In addition, if premiums increase in the future due to assessments, the calculation of premium increases will be transparent to consumers,

¹⁵ Florida, Louisiana, and Mississippi.

¹⁶ It is important to note that in these three states, the assessments are distributed to all policyholders in each state, not just policyholders in the coastal area. In Louisiana, policyholder assessments are offset by a state income tax credit, effectively spreading assessments across all taxpayers.

because they will be due to actual hurricane losses rather than future expected losses predicted by a hurricane model.

In CIWG pro forma financial scenarios, we estimate such an entity could cover up to \$3.2 billion in losses over a twenty-year period without prices (premiums plus assessments) exceeding current premium levels. The estimated probability of this event in any given year is approximately 1-in-850. If the cumulative hurricane losses were such that the premiums plus assessments would exceed the current premium levels (that is, the cumulative assessments would exceed 100 percent of the initial reduced premium), the assessments to ACIA policyholders would be capped at this 100 percent level and assessments would be issued to all other homeowners policyholders in the state (through their current insurer) to cover the remaining losses.

The concept behind this type of strategy is to shift the risk associated with hurricanes from the private insurance industry to consumers.

Analysis of hurricane models suggests the probability of requiring assessments to upstate homeowners during a given twenty-year period is between 6 percent and 10 percent.

Assessments are generally used to service long-term debt financing. Therefore, assessments are locked in for at least twenty years. In addition, by creating the ACIA to compete directly with private insurers by offering lower rates, this strategy could affect availability of coverage from the private market for homeowners insurance and other types of insurance. This is a long-term choice that cannot easily be reversed.

It is worth mentioning that the risk of assessments in this strategy decreases if implemented with the Coastal Band strategy described in the following section. Risk of assessments also decreases as the number of FORTIFIED™ homes increases and building codes improve.

Premium savings:

This strategy could decrease the cost of insurance by up to 50 percent.¹⁷ This strategy is flexible and scalable. It is possible to implement this strategy over time in phases, limiting consumer exposure to assessments and limiting the amount of premium reduction.

Cost:

Creating an insurance entity would require enough capital to exceed minimum financial ratios required by insurance regulators and financial rating agencies. CIWG estimates that a majority of the required capital will be collected through a one-time capital contribution (25 percent of first-year savings) provided by policyholders as they join the program plus the retained earnings in the first year of operations, assuming there is no hurricane in the first year. The remainder of required capital will be solicited from insurers in the form of surplus notes for their current equity

¹⁷ The savings originate as follows: 35% from reduction in cost of capital, 10% from tax exemption, 5% from reduction in operating expenses. It may be prudent to limit premium savings and increase the rate at which the entity accumulates capital.

in the Alabama Insurance Underwriting Association (AIUA), or from other sources, with a goal of achieving a premium-to-surplus ratio of one-to-one by the end of the first year of operation.

Implementation:

The CIWG proposes creation of the Alabama Coastal Insurance Authority (ACIA). The ACIA would be created from the existing AIUA, but it would be modified to add three characteristics. First, it would apply for exemption from federal income tax and state premium and municipal tax as described below. Second, it would be given the authority to assess policyholders for losses exceeding its current net assets. Third, it would eliminate all financial responsibility for the AIUA or ACIA currently imposed on the insurance industry.

A crucial element to implementation is to protect the coastal economy from further damage following a very large hurricane. The ACIA will achieve this security by setting a cap on total policyholder assessments. Unfortunately, the ACIA cannot cap damage caused by a hurricane. Thus, a secondary source of funding is necessary.

Our proposed structure is to implement a secondary assessment in the event ACIA policyholder assessments exceed the initial discount provided by ACIA. The secondary assessment would be levied upon homeowners insurance policyholders in Alabama that do not purchase wind insurance from the ACIA. The secondary assessment would be collected via private insurance carriers underwriting property insurance in Alabama.

One of the primary obstacles in post-catastrophe financing for homeowners insurance is collateral for bonds if there is a shortfall in funds to pay claims, or as a temporary source of income while bonds are being issued, or reinsurance contracts are being pursued. The oil and gas trust would be an ideal source of collateral in such instances, and could be used without depleting the corpus of the trust. Such action would be a natural use for funds that are uniquely generated in Mobile and Baldwin counties and could act as a safety net to avoid significant losses to state revenue in a post catastrophe environment.

See Appendix A for additional details of implementation.

Timing:

This strategy could be in place six to twelve months after receiving seed capital and passing required legislation.

Members' Comments and Concerns

Steve Simkins:

The concept of post-event financing through assessments is an important concept and one that should be vigilantly pursued further. The reality is that significant amounts of wealth are being taken from coastal homeowners customers due not to improperly created rates, but rather due to the high cost of holding capital for future catastrophes. In turn, policyholders on fixed incomes

such as retirees or low to moderate income workers simply either can't afford the cost of insurance, borrow to pay it, or wait for a bailout to cover the shortfalls they cannot cover.

The economic impact on the State of Alabama when a large hurricane hits will, in my opinion, far exceed the cost of solving some of these problems on the front end and in turn requires a solution to the problem.

However, dropping rates to 50 percent below the private market will cause secondary problems in my opinion, as will mechanisms like creating liens against property owners who refuse to pay post catastrophe assessments.

In my opinion, any cost reductions made by post catastrophe financing solutions should be tempered by the need to maintain a viable market in the area. Dropping rates so drastically will in my opinion cause the private market to leave the entire burden of insuring the coastal marketplace to the "authority" being created. While this may work in a pre-catastrophe environment it also subjects Mobile and Baldwin counties to the likelihood of a monopoly for wind insurance resting solely with the "cheaper" organization. A large storm, or administrative problems associated with the organization, would leave a complete void for private investment in these counties and could, and likely would, be devastating to the entire coastal community should the organization fail. The private market simply would not return quick enough to solve the multitude of problems a complete lack of availability would create.

Thus, it is my opinion that any decreases in rate should be tempered and the funds should be used to increase reserves, buy appropriate reinsurance, and ensure a competitive marketplace.

Charles Angell:

The CIWG has initially recommended a 50 percent reduction in Mobile and Baldwin counties' rates because this is the actuarially determined rate once you remove inclusion of any profit, taxes, and cost of capital on the estimated retained portion of the losses (that is, the losses to be paid by ACIA after reinsurance recoveries). Inclusion in the rates of a provision for cost of capital on estimated retained losses is replaced by payment of losses through post-loss assessments (if or when necessary). It is uncertain what the insurance industry's response will be to this large rate reduction by the ACIA. Some members of the CIWG believe that many coastal homeowners will prefer a fixed price on their homeowners insurance, albeit high, as they have today without any assessment potential, rather than the assessable option to be offered by the ACIA. If that is the case, there will still be a need for the voluntary insurers that are selling on the coast today, though they may have a smaller market share than currently. In addition, the ACIA may not be able to provide policy limits high enough for the more expensive homes on the coast, as is the case with the AIUA today, thus continuing the current need for excess limits markets.

Lars Powell:

It is important to note that the post-event assessment approach is not effective for most types of insurance other than coverage for hurricane exposure in the United States. For most insured exposures, diversification reduces the required amount of capital such that the cost of capital for

insurance is much less than the cost of capital for post-event assessments. Compared to other global exposures and perils, the United States hurricane risk is sufficiently large that it cannot be offset by adding other risks to an insured portfolio.

Potential Solution 1.2: Expanding the Risk Pool – a Multi-state “Coastal Band”

Because of the size of hurricane loss events, another strategy that can decrease the cost of capital for coastal property insurance is to expand the risk pool geographically. Geographic diversification decreases the positive correlation in losses and, therefore, the average annual loss and the probable maximum loss per exposure unit in the risk pool. This in turn decreases required rates, the amount of capital required per unit, and the rate of return required to attract capital.

The multi-state strategy is widely encouraged. Governor Bentley’s Alabama Homeowners Insurance Commission (AHIC) report proposed: “Explore the feasibility of a regional multistate compact for hurricane exposure . . . Several speakers and members of the Commission expressed the possibility of reducing rates, particularly in the markets of last resort (such as the AIUA), by spreading risks across state lines. It is the belief of some that such spreading could result in lower aggregate claims costs, lower administrative costs, and lower reinsurance costs. . .” Multi-state solutions “have been discussed at regional meetings of both insurance commissioners and governors of southeastern states. In addition, several proposals have been put forth at the national level promoting such a plan. To this point, little progress has been made.”

In 2014 the Alabama Senate and House passed a joint resolution in 2014 saying they “urge the Gulf Coast counties in Alabama, Alabama’s Department of Insurance, and the Alabama Executive Office to explore and consider the formation of an Interstate Re-insurance Coastal Band and/or reinsurance entity.” SJR22 (2014)

A 2008 National Association of Insurance Commissioners report stated: “The National Association of Insurance Commissioners (NAIC) has actively examined approaches to insuring against natural disasters for the last four decades. In fact, Volume 1 of the 1973 NAIC Proceedings cites a report from the Availability of Essential Insurance (D2) Subcommittee that recommends a five-step program to address this problem. Interestingly, step five is, “The Federal Government, in cooperation with the insurance industry and the NAIC, study and develop a mechanism that would provide additional capacity for catastrophe insurance and would allow for the accumulation of funds from which catastrophe losses could be paid without having those funds depleted by Federal income tax in loss-free years.” (NAIC, 2009, p. 1)

Premium Reduction:

The amount of premium reduction is difficult to estimate. However, we extrapolate results from a few studies to present an estimate of potential savings to consumers in Alabama.

In a study including all tropical cyclone perils¹⁸ (wind, rain, wave, and storm surge), Watson, Johnson, and Dumm (2011)¹⁹ find a continuous coastal band from Virginia to Texas would reduce the amount of capital required to pay for the 100-year storm season by 45 percent. Table 3 displays the 100-year probable maximum loss²⁰ (PML) for each state individually, and for all states pooled together. Individually, the states need \$130 billion dollars to cover the 100-year PML. However, if states pool and share this risk, the 100-year PML decreases to \$71.1 billion.

Table 3: State Hurricane PMLs, Individual vs. Aggregate

| State | 100-year PML |
|-----------------------|-------------------|
| Alabama | \$8,955,484,400 |
| Florida | \$49,483,235,000 |
| Georgia | \$3,349,056,550 |
| Louisiana | \$18,337,501,250 |
| Mississippi | \$4,751,439,400 |
| North Carolina | \$8,231,516,250 |
| South Carolina | \$5,624,569,400 |
| Texas | \$26,495,700,000 |
| Virginia | \$4,810,914,050 |
| Sum of each state | \$130,039,416,300 |
| Multi-state aggregate | \$71,110,875,000 |

Source: Watson, Jr., Charles C., Mark E. Johnson, and Randy E. Dumm, 2011, "The Impact of Geographic Diversity on the Viability of Hurricane Catastrophe Insurance," Final Report, Florida Catastrophic Storm Risk Management Center, Florida State University

For Alabama, the current PML is just under \$9 Billion; however, as part of a multistate risk pool, the PML decreases to \$4.75 billion. Therefore, while results from Watson, *et al.* (2011) are not a direct comparison to our proposed Coastal Band strategy, they do suggest substantial savings from such a strategy are available.

Another study, prepared by Milliman, Inc.²¹ for ProtectingAmerica.org, is useful in estimating potential savings from a coastal band strategy. The authors use hurricane catastrophe models to predict the amount of savings for each region if a series of state and regional catastrophe

¹⁸ Current homeowners insurance policies cover wind and rain. They do not cover flood.

¹⁹ Watson, Jr., Charles C., Mark E. Johnson, and Randy E. Dumm, 2011, "The Impact of Geographic Diversity on the Viability of Hurricane Catastrophe Insurance," Final Report, Florida Catastrophic Storm Risk Management Center, Florida State University

²⁰ There is a 99 percent probability that total losses in any given year will be less than the 100-year PML.

²¹ Chernick, David R. and David Appel, 2013, "ProtectingAmerica.org, More Protection at a Lower Cost for Consumers: a Detailed Analysis of Premium Savings for Consumers." Accessed 9/17/2015 from <http://protectingamerica.org/wp-content/uploads/2013/10/Milliman-PAO-Report-6-6-13-FINAL.pdf>

reinsurance funds, backed by a federal catastrophe reinsurance fund, were created to displace the private reinsurance market.²²

In the Milliman study, Alabama and Mississippi are combined to represent the South Region. The study estimates \$236.1 million annual savings for 2,864,000 housing units in the two states. Because expected hurricane losses are concentrated near the coast, the largest share of these savings should accrue to coastal homeowners. If we assume ninety percent of savings are allocated to the roughly 348,000 coastal homeowners²³ in Mississippi (149,000) and Alabama (199,000), then the average savings for each homeowner in Mobile and Baldwin counties would equal \$611.

If combined with a post-event funding strategy and tax exemptions, the expanded risk pool could reduce the cost of insurance by up to half, and reduce the probability and/or size of policyholder assessments being required.

Cost:

The expected cost of this strategy for the state is zero.

Implementation:

The CIWG has considered potential implementation strategies to create a “Coastal Band” for hurricane insurance. The three strategies promoted by the working group are: 1) Create a multistate admitted insurance company to provide wind-only policies for coastal areas 2) create a multistate reinsurance entity, similar to the Florida Hurricane Catastrophe Fund, to reinsure multiple state wind pools; 3) combine the current state wind pools of multiple states into one entity; 4) a national all catastrophic perils strategy.

The larger challenge in this strategy is political. The “Coastal Band” concept is not novel; however, it has not yet been implemented, suggesting there are barriers to its creation. A multistate grassroots initiative coordinated with committed state leadership will have significant impact on breaking these barriers. To do so in a timely manner requires 1) sufficient grassroots involvement throughout the different states; 2) an integrated, coordinated, multi-layered, multi-state grassroots, grassroots, experts and elected officials initiative; and 3) dedicated staff that keeps the initiative moving day-by-day.

This multi-state initiative is already partially developed by Homeowners Hurricane Insurance Initiative and the Gulf-Coast-East-Coast Coalition. Representatives of grassroots groups in the coastal areas of four states spoke to the CIWG. Leaders of two national insurance reform

²² For more detail, see the study or the bill submitted in Congress, The Homeowners and Taxpayers Protection Act of 2013 (HR1101).

²³ Coastal counties include Baldwin and Mobile in Alabama as well as George, Hancock, Harrison, Jackson, Pearl River, and Stone in Mississippi. Housing data collected from U.S. Census Bureau, State and County Quick Facts, at <http://quickfacts.census.gov>.

organizations also communicated with the CIWG. All said they are looking to the CIWG and Alabama to initiate leadership.

There is a growing network of individuals and groups in several coastal states that have expressed interest in pursuing a multistate coastal solution. These include:

- ALDOI – able to provide leadership amongst multi-state experts and regulatory bodies;
- Alabama Center for Insurance Information and Research – able to provide leadership among multi-state experts and regulatory bodies; able to assist hosting multi-state meetings;
- A Louisiana State Representative and Louisiana grassroots organizations -- wrote, sponsored, passed Louisiana Clarity Law and told Alabama State Representative Joe Faust that coastal Louisiana state legislators and congressmen will be “on board;”
- The officers of two significant New Orleans trade organization;
- A community consultant and co-organizer of the Louisiana group that produced their Clarity Law; now for FEMA and can assist getting information and networking as needed;
- Two directors of a national consumer organizations; one addressed AHIC, the CIWG and has consulted with HHII leadership on numerous occasions;
- A Mississippi grassroots organization -- passed the Mississippi Clarity Law, told the CIWG they are interested in working on multi-state solution;
- An organization of non-profit charitable organizations on the coast of Mississippi; instrumental in passing the Mississippi Clarity Law and want to work on a multi-state solution; has hosted two multi-state planning meetings involving grassroots leaders from Alabama and Louisiana;
- A Texas coalition of trade organizations, chambers of commerce, business people; has passed some state legislation; communicated to CIWG their interest in multi-state solutions and Alabama leadership;
- A legislative liaison for two trade organizations of the Outer Banks of North Carolina and president of a grassroots/grasstops organization -- passed state legislation; communicated to CIWG desire for CIWG and Alabama to take the lead in developing a multi-state initiative;
- A leader in a statewide trade organization in South Carolina;
- The Founder of a New Jersey-New York grassroots/grasstops organization with primary interest in future flood along with wind insurance rates;
- Current and former Congressmen; current congressman expressed strong support of multi-state strategy and the need for a “quarterback” to kick-start and guide a multi-state initiative; offered access to a coastal congressional caucus;

In addition, three meetings have been scheduled:

- Feb. 3, Strategic Planning for three Gulf States with the Alliance Institute facilitating, hosted by the Steps Coalition in Biloxi, MS.
- March 31, Workshop with Grassroots and Grasstops organizations in Gulf States on the multi-state entity concepts , hosted by United Policyholders in New Orleans, LA

- April 1, Workshop with regulators, insurance industry people and public financing experts on the design of the multi-state entity, hosted by United Policyholders, New Orleans, LA

The Governor, the Alabama Legislature, ALDOI, Alabama Center for Insurance Information and Research, and HHII should initiate and lead as needed this multi-state grassroots and grasstops base that has been energized and is looking to Alabama for leadership. This leadership and participation includes:

- Develop and sponsor resolutions of support
- Assign staff to participate in multistate initiative planning meetings, workshops and conferences;
- Communicate with peers in other states regarding multi-state meetings;
- Assist with fundraising for materials, services, staff, meetings and travel for the initiative, as permitted by law.

Some of the promoted versions of the “Coastal Band” strategy require Congressional action or legislation in multiple states. This is developed in greater detail in Appendix B.

Timing:

Timing is a function of commitment of leaders and private funding. Optimistically, a multi-state solution could be implemented as early as 2018. Prompt action requires committed support by the Alabama governor and legislature, other elected officials and leaders, an educated and motivated grassroots, a steering committee and dedicated staff for two years.

Members’ Comments and Concerns

Steve Simkins expressed the following concern about the Coastal Band strategy.

The idea of a multi-state solution has been discussed in detail in the post Hurricane Katrina world. The primary benefit to such a solution would be economies of scale and the ability to further distribute capital and losses over more high risk territory. However, it is my opinion that such a program is not necessarily in the best interest of Alabama citizens.

In order to be effective, such a solution would require political and economic balance between joining states, and would require states to be willing to accept the risk of catastrophes that strike their partner states, or create a state or national catastrophe plan that supports individual state plans.

In turn, I question whether the State of Alabama’s involvement with risk in Florida, Louisiana and Texas is appropriate given the relatively large volume of policies and resulting risk in those states in comparison to Alabama. It is my belief that Alabama policyholders could get shortchanged by policies created to benefit the larger policyholder base and in turn leave Alabama residents to carry more burden of loss than they currently face.

While I support continued pursuit of this plan, I do so with great apprehension and concern that such a plan can be implemented, or implemented in a way that improves the plight of our citizens and protects the economy of our State.

Charles Angell expressed the following comment about the Coastal Band strategy.

The creation of the Coastal Band Pool, whether as a reinsurer or a combination of various State Wind Pools, will certainly require complex agreements between the participating states. These agreements will include actuarial formulas to establish the fair distribution of premiums to the pool from each participating state and the fair distribution of loss payment from the pool to each participating state. The Alabama Wind Pool (either AIUA or ACIA) would not choose to be a participating state in such an agreement if the Board of Directors did not believe it would benefit Alabama policyholders.

Charles Kettell expressed the following comment about the Coastal Band strategy:

A Coastal Band of Wind REINSURANCE among the states is a very worthwhile goal and should be aggressively pursued because, in my opinion, it is a possible solution to lower the cost of capital for reinsurance, it would be a low cost alternative for insurance companies to gain advantage, is not as disruptive to this market and could be more easily and quickly accomplished. This central reinsurance plan could enable other coastal state areas to attempt to mimic the tax free, non-profit, best parts of Florida's Catastrophic Wind Fund.

Any inference that multi-state property INSURANCE agreements can be quickly achieved is not supported by previous historical efforts.

Potential Solution #2: Decreasing Expected Losses – Loss Mitigation

Coastal homeowners can decrease expected wind losses by strengthening the construction of their new or existing homes. Research demonstrates that FORTIFIED™²⁴ construction methods reduce the cost of losses caused by hurricanes. As such, Alabama statutes²⁵ require insurance companies to discount the wind portion of coastal premiums when a home achieves FORTIFIED™ designation.

While a small number of consumers independently choose to fortify their homes with resilient construction methods, the most effective public policy efforts to improve construction include changes in building codes, adding effective enforcement of those building codes, and providing grants and/or loans to retrofit existing structures.

FORTIFIED™ construction methods differ from traditional methods in ways proven to minimize damage from wind and water perils. This involves strengthening roof deck attachments, sealing the roof deck, using roofing materials and attic ventilation that resist high wind and wind driven

²⁴ See www.disastersafety.org for description of FORTIFIED construction methods.

²⁵ Alabama Act 2009-500, and Bulletin 2013-07

rain, strengthening connects between roof, walls, floor, and foundation, protecting openings from impact, and strengthening gables.²⁶

Potential to reduce premiums:

Risk of loss decreases with every FORTIFIED™ home. In addition to decreasing expected wind and water damage for people who live in FORTIFIED™ homes, loss mitigation decreases damage to surrounding structures and decreases the cost of clean up after a storm by minimizing debris formed when houses are damaged by wind. Mitigation also decreases the cost of capital by reducing the probable maximum loss. By reducing damage, mitigation may also reduce a homeowner’s out-of-pocket cost within their deductible.

Average wind premium is 60 to 80 percent of total premium in coastal areas. Table 4 presents the minimum mitigation discount required for each mitigation category. The discounts range from 20 to 60 percent of the wind premium amount.

Table 4: Minimum Mitigation Discounts

| Mitigation category | Existing Home | New and Existing Home |
|-----------------------------|--------------------|-----------------------|
| | Roof > 5 years old | Roof ≤ 5 years old |
| FORTIFIED™ for Safer Living | 50% | 60% |
| FORTIFIED™ Gold | 40% | 50% |
| FORTIFIED™ Silver | 35% | 45% |
| FORTIFIED™ Bronze | 20% | 35% |
| 2006 IRC or later | 10% | 20% |

Source: Alabama Department of Insurance, Bulletin 2013-07

Cost:

The cost of FORTIFIED™ construction in new homes is modest (approximately 2 percent of total construction cost). Retrofitting existing homes is more expensive because parts of the home might need to be disassembled before some of the loss mitigation features can be installed. If retrofitting is done at the same time a roof is being replaced, Bronze level FORTIFIED™ designation can be achieved for a few thousand dollars²⁷ in additional cost for the average home.

Without a reason to remove or replace an existing roof, the cost of FORTIFIED™ designation increases. The estimated cost of retrofitting an average home to FORTIFIED™ Bronze is about \$10,000. In the Strengthen Alabama Homes grant program, donated funds are used to pay for 30 to 100 percent of the retrofit cost, up to \$7,500. In prior efforts, this has been an adequate subsidy to promote loss mitigation.

²⁶ See www.disastersafety.org for research results and videos of FORTIFIED construction performance.

²⁷ The cost of retrofitting to Bronze certification varies considerably based on the design of existing rooflines. In some cases, it can cost much more than the average.

A rough estimate of the total cost of achieving 100 percent FORTIFIED™ construction in Baldwin County and Mobile County is \$2 billion²⁸.

The cost of improving building codes and enforcement thereof would be collected in permit fees. We are not currently able to estimate this cost.

Implementation:

There are two primary avenues to achieve meaningful loss mitigation. The first is to strengthen and enforce building codes. The second is to subsidize the cost of retrofitting existing homes.

Many areas of our coastal counties have strengthened their building codes and building requirements to include much of the FORTIFIED Home™: Bronze program requirements; however, some suggest lack of proper enforcement remains a problem. At least two groups²⁹ are currently working to improve building code enforcement by educating contractors and inspectors. However, these private efforts would benefit from public support such as increased adoption of the FORTIFIED Home™ program standards into municipal building requirements, stronger penalties for code violations and additional resources for inspectors.³⁰

The Strengthen Alabama Homes (SAH) project was created by the Alabama Legislature in 2011 to address the cost issue in loss mitigation. Beginning in 2016, it will be funded by the Alabama Department of Insurance, the Alabama Insurance Underwriting Association, and the Federal Home Loan Bank - Atlanta with up to \$15 million to grant over three years. SAH will make grants directly to homeowners. The grants will partially fund the cost of retrofitting coastal homes.

Importantly, the SAH program is highly scalable and could distribute as much money as is made available for loss mitigation efforts.

Strengthen Alabama Homes plans a significant public education rollout in 2016. At the request of the CIWG, the Homeowners Hurricane Insurance Initiative steering board agreed to assist in this campaign. To that end they passed the following resolution of support: “Strengthen Alabama Homes (SAH) is developing the marketing outreach program to educate consumers about retrofitting their homes against wind damage, and to make consumers aware of the SAH mitigation Grant program. HHII takes notice of the serious attempts to make the proposed SAH grant program accessible to low income homeowners. HHII formally endorsed sensible mitigation strategies in 2010, and agrees to work with ACIIR to help disseminate SAH advertising materials to HHII membership on the HHII website, at HHII meetings and in other ways. HHII further formally requests that since mitigation grant funds derive from public sources, the CIWG seriously consider proposals that require insurance companies to give community-wide mitigation credits to all policyholders when certain benchmarks have been met.”

²⁸ \$10,000 x 200,000 homes = \$2,000,000,000

²⁹ Insurance Institute for Business and Home Safety (IBHS) and Smart Home America.

³⁰ A comprehensive treatment of this topic is available from IBHS at <http://disastersafety.org/ibhs-public-policy/building-codes/>

Given the potential hardship a building code can impose on low-income individuals, some members of the CIWG members believe an exemption should be available to Alabamians living within a range of the poverty level.

Timing:

Alabama recently celebrated completion of its 1,500th FORTIFIED™ home. While it is not possible to mitigate the remaining 198,500 coastal homes overnight, Alabama has ample supply of certified contractors and inspectors to retrofit and certify a large number of FORTIFIED™ homes each year. With adequate funding, the SAH program could retrofit several thousand homes per year.

The combination of building code enforcement and loss mitigation grants can make a lasting difference in the cost of coastal property insurance.

Potential Solution #3: Federal and state tax exemption

Insurance companies pay taxes to state and federal governments. Like other private firms, insurers pay federal corporate income taxes up to 35 percent of profits. While common across industries, this tax system is problematic for insurers covering infrequent and large loss events. Annual taxation of profits creates a mismatch of timing between economic realization of income and application of tax rates. Consider the following stylized example. An insurer offers policies to cover an event that occurs approximately once every fifty years and costs \$50,000 per policy when it happens. If we ignore the insurer's operating expenses, investment returns, and cost of capital, this example demonstrates the problem with annual taxes. If the insurance company charges \$1,000 per year for fifty years, with the loss occurring in the fiftieth year, it will only have \$32,500 available to pay for the loss. In each year without a loss, the insurer pays 35 percent of premium (\$350) in taxes. If taxes were only applied over the return period of the event, the tax code would recognize that the expected profit for the policy was zero, and no taxes would be charged. In the case of very large and rare events, Harrington and Niehaus (2003)³¹ demonstrate that expected tax liabilities exceed the expected cost of losses. Therefore, reducing the federal income tax burden on coastal homeowners insurance policies could provide significant relief for coastal residents.

In addition to federal income taxes, insurers pay up to 3.6 percent state sales tax on homeowners insurance premiums written in Alabama. Current law allocates a fixed amount (approximately \$31 million) of premium taxes to the Education Trust Fund, with the balance delivered to the General Fund.

This report proposes two strategies to affect this change in taxes on wind insurance. The first strategy is the proposed Alabama Coastal Insurance Authority described above. The second is to convert the existing Alabama Insurance Underwriting Association (AIUA) organizational form

³¹ Harrington, Scott E., and Greg Niehaus, 2003. "Capital, corporate income taxes, and catastrophe insurance," *Journal of Financial Intermediation*, v12 (2003) 365-389

from a partnership to a tax-exempt entity under Section 115(1) of the Internal Revenue Code. In this case, it would qualify for the tax exemption as an integral part of the state.

Premium reduction:

Eliminating the state premium tax and federal income tax on wind underwriting profits in Mobile and Baldwin counties would reduce expected premiums by up to ten percent for homeowners buying coverage from the tax-exempt entity.

Cost:

The direct effect of eliminating state taxes would be 3.6 percent of wind insurance premiums underwritten by the tax-exempt entity. Currently, the AIUA underwrites premium of about \$45 million annually. This suggests direct reduction in state tax revenue around \$1.6 million. However, it is possible that indirect effects of reducing coastal insurance premiums would offset some of the decrease in tax revenues. This would happen because money currently spent on wind insurance would be spent locally, generating the 4 percent state sales tax and creating economic activity in Alabama.³²

Implementation:

The CIWG considered several possible scenarios that could reduce the burden of federal income taxes on coastal residents. The recommended action is to convert the AIUA to a non-profit insurance entity under section 115(1) of the Federal Tax Code. Among states with residual markets for wind insurance, only Alabama and South Carolina operate in a taxable structure. One requirement of a federal income tax-exempt entity is to demonstrate a financial relationship with the state. One example of such a relationship is for the state to waive the payment of premium tax. Another requirement is for the entity to have an independent board of directors.

Timing:

This strategy could be implemented in 2016.

Potential Solution #4: Premium Adjustment Plan

According to Alabama Clarity Law data, Mobile and Baldwin counties' losses are similar to statewide losses during past twelve years. These include two hurricane years.

The dramatic differences in rates in Mobile and Baldwin counties compared to the remainder of state are based solely on hurricane catastrophe models which are "evolving" and "divergent." All the members of the CIWG agree neither historical loss data, nor probabilistic catastrophe models are "results accurate" when used to predict future losses in a given year. Rates should not be set by historical data alone, but some members of the CIWG believe when the only instrument used

³² Most of the premium paid to the AIUA is spent on reinsurance from companies domiciled in Bermuda and Europe. Therefore, its local economic impact is limited.

to assign risk geographically is an “evolving,” “divergent,” and not “results accurate” mathematical model, the evidence of actual historical patterns should provide guidance. If one part of the state has a historically demonstrable loss pattern similar to the rest of the state its rates should not be hundreds of percent higher than the rest of the state.

Another potential strategy to address higher coastal wind insurance premiums is to require that differences in insurance rates across the state be no greater than 50 percent. Insurers would not be permitted to reduce Mobile and Baldwin wind policy count by more than 10 percent from December 31, 2015 levels without the prior approval of the Alabama Insurance Commissioner. In addition, if a company enters the Alabama homeowners insurance market, they must submit to the Commissioner a plan to write wind insurance in Mobile and Baldwin counties.

Premium reduction:

One example to meet this requirement would increase inland insurance premiums (all counties except for Mobile and Baldwin) by approximately 10 to 15 percent and decrease coastal premiums by approximately 40 to 50 percent. Many other pairings of inland/coastal premium changes are possible to meet this requirement.

Cost:

This strategy does not increase costs for the state or the insurance industry.

Implementation:

Requires legislation.

See Appendix C for details of implementation.

Timing:

Could be implemented in 2016.

Dissenting Members

The following CIWG members do not agree with the preceding section describing the Premium Adjustment Plan:

Dissenting Opinion from Charles Angell:

Alabama statute requires that insurance rates not be excessive, inadequate, or unfairly discriminatory. Insurance companies must file their rates with the Alabama Department of Insurance (ALDOI) so that our actuaries can determine if those rates violate this statute. To date, the ALDOI is of the opinion that all approved homeowners rate filings are compliant with this statute. Therefore, to require insurers to adjust their actuarially appropriate rates upward or downward in certain territories in accordance with the proposed Premium Adjust Plan would result in territorial rates that are not actuarially justified. However, the Alabama Legislature may decide that it is in the public interest to require such.

Dissenting Opinion from Charles Kettell:

By dictating by percentages of homeowner insurance premium differences regionally in Alabama to private insurance companies, I fear many insurance companies will abandon the Alabama market or create new entities to avoid the law. I am retired. The majority of my career was spent in the medical field so I witnessed, in person, the very negative effects of dictated reimbursement on patient care. I feel the "Premium Adjustment Plan" carries a risk of negative outcomes for property owners. The Premium Adjustment Plan does not address the normally pessimistic models whose purpose is to financially protect property insurance companies from catastrophic loss. It also does nothing to reduce the need or high cost of typical reinsurance.

Dissenting Opinion from Lars Powell:

This report explains that exposure to loss and cost of capital are the primary determinants of coastal wind insurance premiums. While the Premium Adjustment Plan could mask the symptoms of this problem by shifting part of the cost upstate, it does not address the root causes. In contrast, we propose several other potential solutions that address the primary determinants of insurance premiums. Therefore, other proposed solutions are preferable to the Premium Adjustment Plan.

Dissenting Opinion from Steve Simkins:

I strongly oppose the idea of this type of rating plan and believe that the surest way to upset the current homeowners insurance market in Alabama would be to pass such legislation.

Homeowners rates are based upon actuarial assumptions of future loss. Using statutes to tell companies what they can and cannot charge is counter to the basic tenets of actuarial science. Further, such a law would completely break new ground not only in Alabama, but countrywide, for insurers.

Placing a territorial band on rates will not only cause concern from the insurance industry along the coast, but will throw a shock into the insurance world and discourage future investment in the state. Similar, but lesser, restrictions in states like New Jersey, Florida, California and Massachusetts have caused an exodus of private carriers and private investment in the state where such actions were attempted.³³

The reason for this disruption is simple, companies will have to rate Alabama from an actuarial perspective and then turn around and re-rate Alabama shifting rate in such a way as to subsidize some areas and raise other areas' rates to meet the 50 percent band. This is not only time consuming and costly to the insurers, but creates a rating system that lacks any credibility in matching price to the risk presented.

Such a program does not in any way guarantee lower rates for coastal residents, nor does it avoid a situation where rates could actually increase on the coast if expected losses inland increase.

³³ See Grace (2013) for descriptions of these issues.

Conversely, inland residents could see their rates increase significantly despite lower expected losses, simply because coastal expected losses increase.

The reality is coastal rates have seen significant decreases in the recent five years because the insurance market has seen lower expected losses, and the inland rate has increased due to higher expected losses. Thus, the recent market corrections in a regulated, but free, Alabama market already respond to the concerns that created the impetus for this legislation, and create little need for such legislation.

As was shown in previous sections, it is the cost of capital in coastal regions that cause most of the disparity in rates, so finding mechanisms to offset some of that cost, along with mitigation, tax free status in the residual market and by-peril rating is the solution, not complete market disruption as this bill would cause.

Potential Solution #5: By-Peril Rating Requirement

In the wake of hurricanes Ivan and Katrina, some insurance companies were not able to separate their rating elements by peril. For example, some insurers increased the cost of insurance policies that did not cover wind perils, because their rates did not consider wind and non-wind perils separately. This caused some policyholders to pay excessive rates for non-wind insurance.

In response to this problem, the Alabama Department of Insurance issued a Regulation requiring insurance companies to file rates for each peril individually. This regulation takes effect in 2018.

The CIWG applauds ALDOI efforts to address this issue. We support the continued practice of by-peril rating and encourage the Alabama Legislature to codify this Regulation if necessary.

Suggested Future Research

The CIWG consistently encountered important questions for which answers are not currently known. Once these questions are answered, policymakers will have better information with which to set additional policy in the future.

1. The number of homes and businesses with and without wind insurance and flood insurance.

We believe a large number of homeowners and businesses in Baldwin and Mobile counties do not currently have wind insurance. In the wake of a hurricane, people and businesses without wind insurance are less able to rebuild and reopen. Given that a large percentage of state tax revenue is generated in our coastal counties, this creates a financial risk for the entire state. However, at present, we are not able to quantify this risk. Therefore, it is very difficult to determine the appropriate level of resources that should be allocated to addressing this lack of insurance coverage.

The Alabama Center for Insurance Information and Research (ACIIR) is preparing to conduct a series of surveys to estimate the number of homes in Baldwin and Mobile counties without insurance coverage for wind or flood. Results will be reported upon completion.

2. How can uninsured homeowners be incentivized to purchase wind and flood insurance?

We assume people who choose to forego insurance coverage do so based on a combination of price and perceived value. While a large body of research exists on this topic, results are inconclusive. Moreover, it is likely that answers differ regionally and across various sections of the population. Therefore, it is important to add to the current body of research with data and observations specific to Alabama. ACIIR is in the planning process for this research initiative.

3. The economic impact of changes in insurance premiums.

A large percentage of insurance premiums for catastrophic perils, like hurricanes, are paid to international reinsurance companies domiciled outside the United States. Therefore, when insurance premiums increase, the amount of money spent in Alabama's economy decreases. This is important because local spending creates local jobs and generates local taxes.

It will be useful to learn scope and scale of this effect on Alabama's economy. With this information in hand, lawmakers will be better able to determine the appropriate level of resources allocated to monitoring and affecting insurance premiums.

ACIIR, in cooperation with other research centers, has plans to address this question in 2016. Results will be reported upon completion.

4. The effect of loss mitigation on home value.

Loss mitigation decreases the cost of homeowners insurance and the expected out of pocket costs for residents following a storm; therefore, loss mitigation features should increase the value of houses. Unfortunately, there is not enough data available today for home appraisers to consider this source of value in a home. If loss mitigation features increase the appraised value of homes, home buyers should be able to secure larger loans in relation to the cost of the house, and more people will choose to fortify their homes.

ACIIR is currently working with researchers at Auburn University, University of Mississippi, and the Insurance Institute for Business and Home Safety (IBHS) to produce and distribute a quantitative study on the effect of FORTIFIED™ construction on the sale price of homes. Results of this study will enable appraisers to consider loss mitigation features when assigning value to homes.

5. The potential effect of a large hurricane on Alabama's economy and infrastructure.

Currently there are no estimates of how a large hurricane would affect Alabama's economy and its infrastructure. However, this information would be very useful as policymakers consider various actions to improve Alabama's resiliency to catastrophic hurricane losses. The ACIIR is evaluating various methods for producing such an estimate.

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Appendix A: Suggested implementation details – Alabama Coastal Insurance Authority
AIUA writes Wind/Hail Coverage Direct to the Consumer and through licensed insurance agents

A. Organizational Structure

i. Convert the AIUA to a non-profit, federally tax-exempt insurance company: Alabama Coastal Insurance Authority (ACIA).

1. Commissioner of Insurance appoints the independent Board of Directors consisting of 13 Directors, and approves the Board's selection of the CEO.
2. Commissioner will have authority over the new ACIA to the same degree as the current AIUA, including approval of rates, policy forms, and the Plan of Operations.
3. The ACIA will not be backed by the Alabama Guaranty Fund.
4. The ACIA will assess property insurers in Alabama if the coastal assessment exceeds a level to be set by the Board of Directors representing the savings created by the ACIA strategies, and authorize the insurers to recoup such assessments from their homeowners policyholders statewide.
5. Legislature authorizes ACIA to:
 - a. Write policies in Mobile and Baldwin counties and be exempt from AL state premium taxes and municipal premium taxes.
 - b. Issue post-event bonds and assess ACIA policyholders when ACIA is in need of funds to pay losses and/or replenish surplus to a minimum level of \$200M. Require property insurers to purchase bonds from ACIA at a fair market rate, as determined by the Commissioner, if such bonds remain unsold on the open bond market.
 - c. Engage the County Tax Assessor's Offices in Mobile and Baldwin counties to collect assessments on behalf of the ACIA.
 - d. Assess all admitted homeowners insurers in AL as necessary to service the bond debt. Authorize property insurers to recoup this assessment from their AL homeowners policyholders.
6. Legislature mandate that all admitted insurance companies and surplus lines brokers provide a Mobile or Baldwin County residential property owner with an ACIA policy quote before any new or renewal policy may be issued by another insurer. If the property owner rejects the ACIA quote in favor of another insurer's quote, both the property owner and the agent/broker must sign the quote, acknowledging that the agent/broker explained the quote to the property owner.

7. Legislature disallows mortgage lenders to purchase forced-placed insurance for the mortgagee but must continue to pay the ACIA premium and assessments for the mortgagee when mortgagee is in default.

B. Capital

- i. Commissioner requests and authorizes ACIA to convert Members' Equity to surplus notes, payable to insurers upon the Commissioner's and Board of Directors' approval once the ACIA capital/surplus exceeds some amount set by the Commissioner, such as three times ACIA's annual net written premium. Any insurers not wishing to do so will receive their equity distribution.
- ii. ACIA obtains additional surplus notes or capital contributions from corporations or individuals to reach a total capital/surplus deemed appropriate by the Board of Directors and approved by financial rating agencies as necessary.
- iii. ACIA charges each policyholder a one-time capital contribution to be set by the Board of Directors as a percentage of the first year's ACIA premium.
- iv. ACIA secures a line of credit equal to its reinsurance attachment point from a consortium of lenders.

C. Reinsurance and Funding of Losses

- i. ACIA purchases sufficient reinsurance in excess of its attachment point to withstand at least a 1-in-250 hurricane.
- ii. ACIA pays losses within its retention with surplus and draws on its line of credit when necessary.
- iii. ACIA issues a long term (e.g. 20-year) bond to cover losses in excess of its reinsurance cover and such that its capital/surplus does not fall below a level established by the Board of Directors. If the private market does not purchase 100% of the bond issue, insurers are required to purchase the remaining bond issue at terms as determined by the Commissioner.
 1. ACIA assesses its current policyholders an amount sufficient to cover the debt service on all line of credit draws and/or bonds issued. Assessments are attached to the property, not the property owner.

D. Policy Coverage and Rates

- i. AIUA will provide a Wind-Only HO-3 policy to its policyholders.
- ii. Coverage will be on a Replacement Cost Value except when the age of the roof on the home exceeds 80% of its expected lifetime, in which case the coverage will be on an Actual Cash Value basis. The policyholder may not request a policy on an ACV basis in any other case.
- iii. We suggest that ACIA set its Wind rates such that on average, AIUA policyholders receive up to a 50% reduction from current DP-1 rates. However, this rate will be for a HO-3 Wind-only policy with RCV and a 2% deductible. ACIA will develop appropriate rate relativities for policy limits, deductibles of 1%, 5%, 10%, 15%, 20%, rating zones, construction types, years built, age of roof, and mitigation

features. No other rating variables will be used to calculate the premium for a policy.

- iv. ACIA will research the appropriateness of creating a Community Rating Discount for neighborhoods that have mitigated a preponderance of its homes.
- v. ACIA will offer wind deductibles of 1%, 2%, 5%, 10%, 15% and 20% of the Coverage A policy limit. We recommend the Board of Directors consider a requirement that policyholders provide proof of a Catastrophe Savings Account (or other demonstration of financial feasibility) with a balance no less than half of the deductible amount to select a deductible greater than or equal to five percent.

E. Implementation

- i. Legislature must pass ACIA Bill.
- ii. Commissioner appoints ACIA Board of Directors, which then appoints current AIUA Executive Director as ACIA CEO.
- iii. ACIA identifies amount of AIUA Members' Equity that will be converted to ACIA surplus notes.
- iv. ACIA arranges for appropriate line of credit.
- v. ACIA arranges for appropriate reinsurance.
- vi. ACIA negotiates agreement with Mobile and Baldwin counties Tax Assessors for collection of assessments.

ACIA Pro Forma Financial Statements

Assumptions:

- 1) ACIA writes coverage for 150,000 homeowners in all years.
- 2) Initial seed capital is \$25m
- 3) All policyholders are required to pay a capital contribution equal to 25% of their first year's premium.
- 4) Cede \$65M premium to standard reinsurers each year for \$1.8B excess of \$500M in losses, with a \$65M reinstatement fee when a full loss occurs
- 5) Continue to pay 8% commission to independent agent
- 6) Exempt from federal income tax and Alabama premium tax
- 7) 2% lower operating expense than the current AIUA
- 8) Pay 1% annually for access to a \$500M line of credit, and 6% interest for any funds taken from the line of credit, repayment amortized over 20 years.
- 9) Access the line of credit when necessary to not let capital/surplus fall below \$200M once that level is achieved

Best Scenario Losses:

\$500MM hurricane in year 10

Middle Scenario Losses:

\$500MM hurricane in year 4

\$500MM hurricane in year 8

Adverse Scenario Losses:

Three storms in year 1: 1-in-100 = \$1.3B, 1-in-50 = \$500MM, 1-in-25 = \$300MM; total of \$2.1B

\$500MM in year 5

\$500MM in year 10

Best Scenario Income Statement

| | <u>YEAR 1</u> | <u>YEAR 2</u> | <u>YEAR 3</u> | <u>YEAR 4</u> | <u>YEAR 5</u> | <u>YEAR 6</u> | <u>YEAR 7</u> | <u>YEAR 8</u> | <u>YEAR 9</u> | <u>YEAR 10</u> |
|--|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|
| <u>UNDERWRITING INCOME</u> | | | | | | | | | | |
| Policies Written | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 |
| Avg. Premium per Policy | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Total Direct Premium | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 |
| Ceded Premium | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 |
| Assumed Premium | - | - | - | - | - | - | - | - | - | - |
| Net Premium | 85,000,000 | 85,000,000 | 85,000,000 | 85,000,000 | 85,000,000 | 85,000,000 | 85,000,000 | 85,000,000 | 85,000,000 | 85,000,000 |
| <u>UNDERWRITING EXPENSE</u> | | | | | | | | | | |
| Net Incurred Loss, LAE, IBNR | 15,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 500,000,000 |
| Line of Credit Fee @ 1% | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| Commissions @ 8% | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 |
| Operating Expenses @ 5% | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 |
| Total Underwriting Expense | 39,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 524,500,000 |
| UNDERWRITING INCOME | 45,500,000 | 45,500,000 | 45,500,000 | 45,500,000 | 45,500,000 | 45,500,000 | 45,500,000 | 45,500,000 | 45,500,000 | (439,500,000) |
| Federal Income Tax on U/W Income | - | - | - | - | - | - | - | - | - | - |
| INVESTMENT INCOME @ 4% OF ASSETS | 1,000,000 | 4,360,000 | 6,354,400 | 8,428,576 | 10,585,719 | 12,829,148 | 15,162,314 | 17,588,806 | 20,112,359 | 22,736,853 |
| NET INCOME | 46,500,000 | 49,860,000 | 51,854,400 | 53,928,576 | 56,085,719 | 58,329,148 | 60,662,314 | 63,088,806 | 65,612,359 | (416,763,147) |
| CUMULATIVE NET INCOME | 46,500,000 | 96,360,000 | 148,214,400 | 202,142,976 | 258,228,695 | 316,557,843 | 377,220,157 | 440,308,963 | 505,921,321 | 89,158,174 |
| Annual Policyholder Assessment Required Per Homeowner Policy | | | | - | - | - | - | - | - | 28 |
| Annual Policyholder Assessment Required Per Homeowner Policy | | | | | - | - | - | - | - | - |
| Annual Policyholder Assessment Required Per Homeowner Policy | | | | | | | | | | - |
| Total Assessment = | | | | | | | | | | 28 |

Best Scenario Balance Sheet

| | <u>YEAR 0</u> | <u>YEAR 1</u> | <u>YEAR 2</u> | <u>YEAR 3</u> | <u>YEAR 4</u> | <u>YEAR 5</u> | <u>YEAR 6</u> | <u>YEAR 7</u> | <u>YEAR 8</u> | <u>YEAR 9</u> | <u>YEAR 10</u> |
|------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| <u>ASSETS</u> | | | | | | | | | | | |
| Cash, Securities, LOC | 25,000,000 | 109,000,000 | 158,860,000 | 210,714,400 | 264,642,976 | 320,728,695 | 379,057,843 | 439,720,157 | 502,808,963 | 568,421,321 | 200,658,174 |
| <u>LIABILITIES</u> | | | | | | | | | | | |
| Unearned Premium Reserve (UEP) | - | - | - | - | - | - | - | - | - | - | - |
| Loss & LAE / IBNR Reserve | - | - | - | - | - | - | - | - | - | - | - |
| Federal Tax Liability | - | - | - | - | - | - | - | - | - | - | - |
| Total Liabilities | - | - | - | - | - | - | - | - | - | - | - |
| <u>Policyholders Equity</u> | | | | | | | | | | | |
| Capital | 25,000,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 |
| Surplus | - | 46,500,000 | 96,360,000 | 148,214,400 | 202,142,976 | 258,228,695 | 316,557,843 | 377,220,157 | 440,308,963 | 505,921,321 | 89,158,174 |
| Line of Credit/Bond Contribution | - | - | - | - | - | - | - | - | - | - | 49,000,000 |
| Total Capital/Surplus | 25,000,000 | 109,000,000 | 158,860,000 | 210,714,400 | 264,642,976 | 320,728,695 | 379,057,843 | 439,720,157 | 502,808,963 | 568,421,321 | 200,658,174 |

Middle Scenario Income Statement

| | <u>YEAR 1</u> | <u>YEAR 2</u> | <u>YEAR 3</u> | <u>YEAR 4</u> | <u>YEAR 5</u> | <u>YEAR 6</u> | <u>YEAR 7</u> | <u>YEAR 8</u> | <u>YEAR 9</u> | <u>YEAR 10</u> |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| UNDERWRITING INCOME | | | | | | | | | | |
| Policies Written | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 |
| Avg. Premium per Policy | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Total Direct Premium | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 |
| Ceded Premium | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 |
| Assumed Premium | - | - | - | - | - | - | - | - | - | - |
| Net Premium | 85,000,000 |
| UNDERWRITING EXPENSE | | | | | | | | | | |
| Net Incurred Loss, LAE, IBNR | 15,000,000 | 15,000,000 | 15,000,000 | 500,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 500,000,000 | 15,000,000 | 15,000,000 |
| Line of Credit Fee @ 1% | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| Commissions @ 8% | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 |
| Operating Expenses @ 5% | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 |
| Total Underwriting Expense | 39,500,000 | 39,500,000 | 39,500,000 | 524,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 524,500,000 | 39,500,000 | 39,500,000 |
| UNDERWRITING INCOME | 45,500,000 | 45,500,000 | 45,500,000 | (439,500,000) | 45,500,000 | 45,500,000 | 45,500,000 | (439,500,000) | 45,500,000 | 45,500,000 |
| Federal Income Tax on U/W Income | - | - | - | - | - | - | - | - | - | - |
| INVESTMENT INCOME @ 4% OF ASSETS | 1,000,000 | 8,004,444 | 10,144,622 | 12,370,407 | 14,685,223 | 8,012,632 | 10,153,138 | 12,379,263 | 14,694,434 | 17,102,211 |
| NET INCOME | 46,500,000 | 53,504,444 | 55,644,622 | (427,129,593) | 60,185,223 | 53,512,632 | 55,653,138 | (427,120,737) | 60,194,434 | 62,602,211 |
| CUMULATIVE NET INCOME | 46,500,000 | 100,004,444 | 155,649,067 | (271,480,526) | (211,295,303) | (157,782,670) | (102,129,533) | (529,250,270) | (469,055,836) | (406,453,625) |
| Annual Policyholder Assessment Required Per Homeowner Policy | | | | 234 | 234 | 234 | 234 | 234 | 234 | 234 |
| Annual Policyholder Assessment Required Per Homeowner Policy | | | | - | - | - | - | 148 | 148 | 148 |
| Annual Policyholder Assessment Required Per Homeowner Policy | | | | - | - | - | - | - | - | - |
| Total Assessment = | | 0 | 0 | 234 | 234 | 234 | 234 | 382 | 382 | 382 |

Middle Scenario Balance Sheet

| | <u>YEAR 0</u> | <u>YEAR 1</u> | <u>YEAR 2</u> | <u>YEAR 3</u> | <u>YEAR 4</u> | <u>YEAR 5</u> | <u>YEAR 6</u> | <u>YEAR 7</u> | <u>YEAR 8</u> | <u>YEAR 9</u> | <u>YEAR 10</u> |
|------------------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <u>ASSETS</u> | | | | | | | | | | | |
| Cash, Securities, LOC | 25,000,000 | 109,000,000 | 162,504,444 | 218,149,067 | 200,019,474 | 260,204,697 | 313,717,330 | 369,370,467 | 200,249,730 | 260,444,164 | 323,046,375 |
| <u>LIABILITIES</u> | | | | | | | | | | | |
| Unearned Premium Reserve (UEP) | - | - | - | - | - | - | - | - | - | - | - |
| Loss & LAE / IBNR Reserve | - | - | - | - | - | - | - | - | - | - | - |
| Federal Tax Liability | - | - | - | - | - | - | - | - | - | - | - |
| Total Liabilities | - | - | - | - | - | - | - | - | - | - | - |
| <u>Policyholders Equity</u> | | | | | | | | | | | |
| Capital | 25,000,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 |
| Surplus | - | 46,500,000 | 100,004,444 | 155,649,067 | (271,480,526) | 197,704,697 | 251,217,330 | 306,870,467 | (120,250,270) | 197,944,164 | 260,546,375 |
| Line of Credit/Bond Contribution | - | - | - | - | 409,000,000 | - | - | - | 258,000,000 | - | - |
| Total Capital/Surplus | 25,000,000 | 109,000,000 | 162,504,444 | 218,149,067 | 200,019,474 | 260,204,697 | 313,717,330 | 369,370,467 | 200,249,730 | 260,444,164 | 323,046,375 |

Adverse Scenario Income Statement

| | <u>YEAR 1</u> | <u>YEAR 2</u> | <u>YEAR 3</u> | <u>YEAR 4</u> | <u>YEAR 5</u> | <u>YEAR 6</u> | <u>YEAR 7</u> | <u>YEAR 8</u> | <u>YEAR 9</u> | <u>YEAR 10</u> |
|--------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| UNDERWRITING INCOME | | | | | | | | | | |
| Policies Written | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 |
| Avg. Premium per Policy | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Total Direct Premium | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 | 150,000,000 |
| Ceded Premium | 93,888,889 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 | 65,000,000 |
| Assumed Premium | - | - | - | - | - | - | - | - | - | - |
| Net Premium | 56,111,111 | 85,000,000 |
| UNDERWRITING EXPENSE | | | | | | | | | | |
| Net Incurred Loss, LAE, IBNR | 1,300,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 500,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 500,000,000 |
| Line of Credit Fee 1% | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| Commissions @ 8% | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 | 12,000,000 |
| Operating Expenses @ 5% | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 |
| Total Underwriting Expense | 1,324,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 524,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 39,500,000 | 524,500,000 |
| UNDERWRITING INCOME | (1,268,388,889) | 45,500,000 | 45,500,000 | 45,500,000 | (439,500,000) | 45,500,000 | 45,500,000 | 45,500,000 | 45,500,000 | (439,500,000) |
| Federal Income Tax | - | - | - | - | - | - | - | - | - | - |
| INVESTMENT INCOME | 1,000,000 | 8,004,444 | 10,144,622 | 12,370,407 | 14,685,223 | 8,012,632 | 10,153,138 | 12,379,263 | 14,694,434 | 17,102,211 |
| NET INCOME | (1,267,388,889) | 53,504,444 | 55,644,622 | 57,870,407 | (424,814,777) | 53,512,632 | 55,653,138 | 57,879,263 | 60,194,434 | (422,397,789) |
| CUMULATIVE NET INCOME | (1,267,388,889) | (1,213,884,444) | (1,158,239,822) | (1,100,369,415) | (1,525,184,192) | (1,471,671,559) | (1,416,018,422) | (1,358,139,159) | (1,297,944,725) | (1,720,342,514) |
| Annual Policyholder Assessment | 806 | 806 | 806 | 806 | 806 | 806 | 806 | 806 | 806 | 806 |
| Annual Policyholder Assessment | | | | | 148 | 148 | 148 | 148 | 148 | 148 |
| Annual Policyholder Assessment | | | | | | | | | | 112 |
| Total Assessment = | | 806 | 806 | 806 | 954 | 954 | 954 | 954 | 954 | 1065* |

* ACIA policyholder assessment capped at \$1,000. Remainder of policyholders in state assessed the balance, which amounts to \$7 per year per homeowner.

Adverse Scenario Balance Sheet

| | <u>YEAR 0</u> | <u>YEAR 1</u> | <u>YEAR 2</u> | <u>YEAR 3</u> | <u>YEAR 4</u> | <u>YEAR 5</u> | <u>YEAR 6</u> | <u>YEAR 7</u> | <u>YEAR 8</u> | <u>YEAR 9</u> | <u>YEAR 10</u> |
|------------------------------------|---------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| <u>ASSETS</u> | | | | | | | | | | | |
| Cash, Securities, LOC | 25,000,000 | 200,111,111 | 253,615,556 | 309,260,178 | 367,130,585 | 200,315,808 | 253,828,441 | 309,481,578 | 367,360,841 | 427,555,275 | 200,157,486 |
| <u>LIABILITIES</u> | | | | | | | | | | | |
| Unearned Premium Reserve (UEP) | - | - | - | - | - | - | - | - | - | - | - |
| Loss & LAE / IBNR Reserve | - | - | - | - | - | - | - | - | - | - | - |
| Federal Tax Liability | - | - | - | - | - | - | - | - | - | - | - |
| Total Liabilities | - | - | - | - | - | - | - | - | - | - | - |
| <u>Policyholders Equity</u> | | | | | | | | | | | |
| Capital | 25,000,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 | 62,500,000 |
| Surplus | - | (1,267,388,889) | 191,115,556 | 246,760,178 | 304,630,585 | (120,184,192) | 191,328,441 | 246,981,578 | 304,860,841 | 365,055,275 | (57,342,514) |
| Line of Credit/Bond Contribution | - | 1,405,000,000 | - | - | - | 258,000,000 | - | - | - | - | 195,000,000 |
| Total Capital/Surplus | 25,000,000 | 200,111,111 | 253,615,556 | 309,260,178 | 367,130,585 | 200,315,808 | 253,828,441 | 309,481,578 | 367,360,841 | 427,555,275 | 200,157,486 |

Appendix B: Suggested implementation details – Multi-state Coastal Band

Implementation of a multi-state solution involves parallel tracks: 1) an educated grassroots-grasstops mobilization across state lines that causes Congress or state legislatures to act and 2) technical development of the economic model and legislation. The ultimate economic structure of the entity should serve consumers in the most efficient and reliable way.

One of the simplest (not necessarily the easiest) Sequence Plans targets Congressional action. Below is a *back-engineered* sequence:

- Internet and phone meetings and planning – all leaders: governor’s office, legislature, Congressman, ALDOI and ACIIR communicate with peers; coordinated by HHII and CIWG; develop initial face-to-face meetings.
- Hire staff
- Fine-tune Initiative Action Plan
- Begin explorations of economic-structural characteristics of several multi-state insurance options;
- Workshops and steering committee meetings that a) develop the technical design of multi-state entity, and b) plan and guide grassroots-grasstops education and mobilization; perhaps monthly;
- Multi-state regional follow-up and action convenings; fine-tune economic model and legislation
- Congressional activities;
- Vote in Congress;
- Implementation and Opening of the Door of the Multi-state entity for Business in 2018

It is premature to design specific economic models without discussing the needs and desires of people in other states. The CIWG briefly discussed some general frameworks and these are reported below.

Option 1 – Coastal Band Insurer

ACIA writes Wind/Hail Coverage Direct to the Consumer or through licensed insurance agents in multiple coastal states.

A. Organizational Structure

- i. Create the Gulf Coast Insurance Company (GCIC), domiciled in Alabama to provide insurance for various states’ Wind Pool policyholders. A minimum of 2 states must choose to participate before GCIC will be formed.
- ii. ACIA merges into GCIC and the ACIA Board of Directors and CEO serve in that capacity for GCIC. As each additional state merges with GCIC, that state’s Wind Pool will name 2 Directors approved by the Commissioner of that state to replace 2 of the ACIA Directors on the GCIC Board of Directors. After 3 years and thereafter, the GCIC Board of Directors may appoint a new CEO with the AL Commissioner’s approval.

- iii. GCIC will be regulated by the Alabama Department of Insurance according to Alabama statutes.
- iv. Each state merging with or participating in GCIC must pass legislation permitting such merger or participation, and permitting GCIC's rates, policy coverages and Plan of Operations to be utilized in that state.

B. Capital/Surplus

- i. Each State Wind Pool that chooses to merge with or participate in GCIC provides GCIC with seed capital equal to 100% of the Net Written Premium placed in GCIC.
- ii. If a state's Wind Pool does not have sufficient capital to meet the requirement in i., then each policyholder from that state will make a one-time capital contribution equal to an amount sufficient to achieve the requirement in i.

C. Reinsurance and Funding of Losses

- i. GCIC sets its reinsurance attachment point (retention) to the 1-in-50 year event for the anticipated multi-state writings.
- ii. GCIC purchases sufficient reinsurance to withstand at least a 1-in-250 hurricane.
- iii. GCIC increases its line of credit to its new attachment point.
- v. GCIC issues long-term bonds to cover losses in a similar manner as described for ACIA.
- vi. Assessments are levied against all GCIC policyholders (all states) to service the bonds.

D. Policy Coverage and Rates

- i. Same as for ACIA in Appendix A.

E. Implementation

- i. Each state participating in GCIC must determine if GCIC will replace their state's Wind Pool or if they will co-exist and compete with each other. If GCIC replaces the state's Wind Pool, legislation will be necessary to repeal existing Wind Pool statutes.

II. Option 2 – Coastal Band Reinsurer

A. Organizational Structure

- i. Create the Gulf Coast Reinsurance Company (GCRC), domiciled in Alabama to provide reinsurance for various states' Wind Pools. A minimum of 2 states must choose to participate before GCRC will be formed.
- ii. Initially, the ACIA CEO and Board of Directors will serve in that same capacity for GCRC. As each state joins GCRC, that state's Wind Pool will name 2 Directors approved by the Commissioner to replace 2 of the ACIA Directors on the GCRC Board of Directors. After 3 years and thereafter, the GCRC Board of Directors may appoint a new CEO with the Commissioner's approval.
- iii. GCRC will be regulated by the Alabama Department of Insurance according to Alabama statutes.

B. Capital/Surplus

- i. ACIA provides GCRC with \$5M in seed capital and a \$15M surplus note as additional seed capital, with the surplus note to be refunded, upon the Commissioners approval, subject to GCRC's capital not becoming less than \$50M after such refund.
- ii. Each State Wind Pool that chooses to reinsure with GCRC provides seed capital and a surplus note.

C. Reinsurance and Funding of Losses

- i. ACIA purchases sufficient reinsurance from GCRC in excess of a 1-in-50 year event to withstand at least a 1-in-250 hurricane.
- ii. Each other State Wind Pool selects the reinsurance limit and attachment point it desires to purchase from GCRC.
- iii. The reinsurance treaty between GCRC and the various State Wind Pools will be a joint treaty, with all State Wind Pools' reinsurance premiums being used collectively to cover the other States' losses between each State's attachment point and reinsurance limit.
- iv. Above a specified limit GCRC will purchase reinsurance collectively on behalf of all the State Wind Pools such that all State Wind Pools are reinsured up to a 1-in-300 return period.

Appendix C: Suggested implementation detail – Premium Adjustment Plan

Require insurance companies to limit the difference between coastal rates and inland rates to no more than 50%. Insurers would not be permitted to reduce Mobile and Baldwin wind policy count by more than ten percent from December 31, 2015 levels without the prior approval of the Alabama Insurance Commissioner. In addition, if a company enters the Alabama homeowners insurance market, they must submit to the Commissioner a plan to write wind insurance in Mobile and Baldwin counties.

A. Policy Coverage and Rates

- i. Rates to be determined by each insurer and filed with ALDOI for approval.

B. Implementation

- i. Legislature must pass the Premium Adjustment Bill.
- ii. ALDOI conducts a hearing and then publishes a Regulation providing filing requirements and timetable to insurers. Revised rates must be in effect by 1/1/2018.

Appendix D: Loss Mitigation.

Loss mitigation has two components:

- 1) Establishing improved building codes and the enforcement of those codes. This is important not only on the coast but also in tornado alley. Without building codes requiring roofs that are hardened against wind, Alabama homeowners will continue to replace damaged or worn-out roofs with the same inferior roofs that were damaged before.

Many coastal communities have adopted superior building codes that are similar to the IBHS Fortified: Bronze standard, but the enforcement of these codes is still lacking. No communities in tornado alley that we are aware of have taken such steps.

Alabama is one of only two states that does not have a statewide building code (Delaware is the other). It is time for Alabama to correct this inadequacy.

Implementation:

Legislation should be passed to accomplish the following:

- a. Adopt the IBHS Fortified: Bronze standards statewide and require its enforcement at the county/municipal level.
 - b. Require building permits for all roof replacements.
 - c. Put in place a funding mechanism to enable counties to hire and maintain staff to enforce the building code.
 - d. Establish penalties for code violations.
 - e. Require home appraisers to reflect the full cost of mitigation features in the appraisal value of homes for sale.
 - f. Require realtors associations to include on the MLS whether or not a home has been fortified to the Bronze level or higher.
 - g. Require home sellers to disclose whether or not a home has been fortified to the Bronze level or higher.
- 2) Encouraging and assisting homeowners to retrofit their homes to withstand wind. One meaningful way to reduce homeowners premiums in the state is to reduce the damage caused to homes by hurricanes and tornadoes. We cannot reduce the frequency or severity of future hurricanes or tornadoes, so we must reduce the damage to homes by making them stronger. Homeowners must be educated on the value of mitigation, and homeowners must in many cases receive financial assistance to implement mitigation.

Implementation:

Legislation should be passed to provide annual funding to Strengthen Alabama Homes to be able to offer mitigation grants to low and moderate income homeowners.

Appendix E: Options Considered but Discarded

- 1) ACIA could become a surplus lines writer of homeowners insurance in other coastal states so as to create geographic spread of risk.
- 2) Make it mandatory that all coastal wind policyholders purchased their Wind policy from ACIA (that is, create a monopoly) so as to create a large assessment base.
- 3) Require all admitted homeowners insurers in AL to cede 100% of their coastal wind premiums and losses to ACIA in order to create a large assessment base.
- 4) Require surplus lines brokers to charge an additional 3% policy fee on all coastal property policies, payable to ACIA.
- 5) Recommend that Federal Income Taxes on carriers' surplus that is accumulated for catastrophic events be eliminated. Because the proposed local entity would be tax exempt, decided against pursuing the subject any further.
- 6) Recommend that state premium taxes be adjusted in Mobile-Baldwin counties to reduce the excess collected because Baldwin-Mobile premiums are significantly higher than the rest of the state. This would require changing the tax every time premiums change. Parity in premiums would fix it. Because the proposed local entity would seek exemption from state and municipal taxes, decided against pursuing the subject any further.
- 7) Recommend that state premium taxes on admitted and non-admitted carriers be equalized. Because the proposed local entity would be tax exempt, decided against pursuing the subject any further.
- 8) Recommend creation of an Alabama-specific hurricane cat model. This would be very costly and time consuming. Alabama Center for Insurance Information and Research (ACIIR) joined a consortium that is developing an open-source cat model. This model would not apply to the proposed local entity because it would not set prices based on models and reinsurers could not be compelled to use the Alabama-specific model. Decided against pursuing the subject any further.

Appendix F: Stipulations

For a stipulation to appear in this Appendix, no member disagreed with its facticity; however, members do not agree about the relevance of many stipulations listed below.

1) Clarity Act data facts:

- a. The DOI did not have total admitted companies premiums and losses collected by county when it approved changes in insurance rates radically affecting Mobile and Baldwin counties in 2006. It first obtained this data when the Clarity Law data was compiled in 2013. The DOI did have historical premiums and losses by rating territory as provided by each admitted individual insurer in their rate filings.
- b. Clarity Law data is obtained from all admitted insurance companies selling homeowners insurance in Alabama for 2007-2013.
 - i. The data does not include premiums/losses from insurers no longer in business or which did not voluntarily report data for years prior to 2007
 - ii. The data does not include premiums/losses from homeowners who have dropped their wind coverage since 2006. (DOI White Paper)
 - iii. Clarity Law does not include surplus lines data. The DOI does not have access to surplus lines data aggregated by zip codes.
- c. Clarity Law data for fire, wind-hail and other perils is not accurate until the year 2012; however, the premiums, losses, and policy count totals are accurate for all years.
- d. Clarity Law double-counts some policies due to insureds purchasing both non-wind and wind policies separately – approximately 15,000 separate wind policies, or 8% of policies reported.
- e. In 2013 there were 118,798 policies in-force in Mobile County and 68,627 in Baldwin County, a total of 187,425 policies. More than 70,000 policyholders were non-renewed in Mobile and Baldwin counties between 2006 and 2011, according to the Press Register.
- f. Mobile-Baldwin average loss per policy during the last 10 years has been \$585; the average loss per policy in the rest of the state is \$703, twenty percent greater than Mobile & Baldwin counties.
- g. Admitted companies' premiums and losses in 2013 in Mobile County were \$161.9 million and \$39 million, respectively; in Baldwin County \$96.8 and \$10.5 million, respectively. Surplus lines homeowners premiums in 2013 in Mobile County were \$27.1 million, and \$50.2 million in Baldwin County; commercial premiums \$95.7 million and 80.4 million respectively (per Alabama Fiscal Office). Total homeowners' premiums in Mobile & Baldwin counties in 2013 were \$336 million.
- h. For 2004-2013, the 10 least profitable Alabama counties had an average loss ratio of 125.3%; the least profitable 16 counties averaged 115.64%. Mobile and Baldwin counties had the lowest loss ratios in the state: 44.76%.
- i. Twelve inland counties suffered a greater loss-per-policy in the year of Ivan than Mobile County, four inland counties had greater loss per policy than Baldwin County in the Hurricane Ivan year (2004).
- j. For many years Insurance companies charged Mobile and Baldwin more for non-wind coverage than the rest of the state, despite no evidence that non-wind losses were higher. As a result, The DOI has required insurers to implement by-peril rating in 2018 – a step taken to alleviate the inequity in coastal non-wind rates and the rest of the state.
- k. The Clarity Law data includes the April 2011 Tornado Outbreak.
- l. The Clarity Law data includes Hurricanes Iva and Katrina losses and premiums.

2) Other Claims data facts:

- a. Sixty-five of Alabama's sixty-seven counties were declared disaster counties by FEMA after Hurricane Ivan. (FEMA website)

- b. Ten or eleven Cat 1, 2, 3 hurricanes hit the Alabama coast in the 20th Century; five or six were Cat 3, none were Cat 4 or 5. Forty-seven years intervened between the 1932 Cat 1 hurricane strike that hit Alabama and Hurricane Frederic (Cat 3); 25 years intervened between Frederic and Hurricane Ivan (Cat 3). (NOAA)
- c. Alabama had more than 590 tornadoes in the first decade of the 21st century -- before the April 2011 Tornado Outbreak. (Insurance Information Institute-AHIC).
- d. Aon ran the AIR and RMS Tornado models for Alabama alone (not countrywide), which indicated that the April 2011 Tornado Outbreak was a .004 (1-in-250 year) event in Alabama, per AIR, and a .0001 (1-in-10,000 year) event, per RMS.
- e. The fourth-largest tornado outbreak in north Alabama history occurred in 2014 (National Weather Service & Times Free Press); it caused no significant change in upstate losses per policy.
- f. For the 11-year period 2004-2014, Louisiana Residential Property experienced 7 years of profitability (2004 and 2009-2014) and 4 years of unprofitability (2005-2008). In 2005, losses and expenses (including an estimate for reinsurance costs) were more than 5 times the annual premium collected, and in 2006 the losses and expenses were over 2.6 times the annual premium. For the 11 years combined, losses and expenses were 34% more than the total premium collected. (Data from LA DOI)
- g. Louisiana's 2014 statewide average residential property premium (homeowners, renters, condo units) was \$1,516 (LA Clarity Act data), while Alabama's statewide average residential property premium for 2014 was \$1,074 (AL Clarity Act data), indicating Louisiana rates are 41% higher than Alabama's.
- h. Catastrophe wind & hail losses make up 80% of all the losses experienced in the Louisiana coastal parishes vs. 25% of the losses in the northern Louisiana parishes (LA Clarity Act data). Alabama homeowners rate filings generally predict 75% of the coastal losses will come from catastrophe wind & hail on the coast and 20% in the northern counties (ALDOI).
- i. Louisiana Coastal Zone* 10-year average Loss-per-policy was \$1,417, which is 2.3 times higher than the \$616 average for the rest of the state. (La Clarity Law data) (*Louisiana Coastal Zone is composed of all the Louisiana parishes through which I-10/I-12 run plus all those south of I-10/I-12.)
- j. Hurricane Katrina, which hit Louisiana, Mississippi & Alabama in 2005, was the most costly natural disaster in US History.

3) Catastrophic wind model facts:

- a. Hurricane Catastrophe Models were not used in Alabama prior to 2006.
- b. The hurricane models are evolving, experimental, and uncertain. Different models give different results. They are purchased by insurance companies and reinsurance companies for use in rate filings to establish coastal premiums. They are reviewed by the Florida Commission on Hurricane Loss Projection Methodology and they are deemed to be process accurate, but not results accurate. For example: The three major hurricane catastrophe modeling companies projected eleven landfall hurricanes hitting the continental United States in 2006-2010, but only 4 actually occurred; they projected \$65 billion in losses, but only \$15 billion occurred. There is no process to qualify or certify catastrophe models.
- c. When catastrophe model results change from year to year, consumer premiums can change substantially.
- d. Results from ratemaking methods based exclusively on historical data are uncertain and could lead to substantial changes in premiums paid by consumers.
- e. The Alabama Department of Insurance does not have expertise in hurricane catastrophe models, but relies on the Florida Commission on Hurricane Loss Projection Methodology to approve the use of Hurricane Catastrophe Models. No members of the Florida Commission on Hurricane Loss Projection Methodology see any company's entire model. (Members of the Commission)
- f. The Florida Commission on Hurricane Loss Projection Methodology approved both RMS Model 10 and then RMS Model 11, which yielded substantially different results.

- g. Actuarial Standards of Practice -- ASOP # 38: 3.5.1 3.5.2: In view of the intended use of the model, the actuary should examine the model output for reasonableness, considering factors such as the following: a. the results derived from alternate models or methods, where available and appropriate; b. how historical observations, if applicable, compare to results produced by the model; c. the consistency and reasonableness of relationships among various output results; and d. the sensitivity of the model output to variations in the user input and model assumptions. –and “3.6: Appropriate Use of the Model—Having completed the analysis described in sections 3.2–3.5 above, the actuary should use his or her professional judgment to determine whether it is appropriate to use the model results, subject to any appropriate adjustments. The actuary should disclose any such adjustments in accordance with section 4.3.”
 - h. Tornado modeling is in its infancy.
- 4) The Alabama Department of Insurance facts:
- a. The DOI has the power and authority to reduce coastal premiums or make them equal to the rest of the state, if it deems such is justified.
 - b. The DOI has the authority to direct the homeowner’s insurance companies to average the reinsurance cost and then equalize the dollar amount of the cost of reinsurance across all Alabama homeowner policies, if it deems such is justified.
 - c. DOI approved changes in rate making structures (that is, the use of hurricane models) that resulted in dramatic differences in premiums and deductibles in Mobile and Baldwin counties starting in 2006.
 - d. The DOI does not regulate reinsurers, and reinsurers price their coverage using proprietary tools with significant reliance on hurricane catastrophe models.