Catastrophic risk premium subsidization analysis for National Association of REALTORS®

Commissioned by the National Association of REALTORS

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Executive Summary

PURPOSE OF REPORT

The National Association of REALTORS® (NAR) is a trade association representing REALTORS® in the United States. It is the country's largest trade association and one of its largest lobbying groups. NAR engaged Milliman, one of the world's largest independent actuarial consulting firms, to assist in the evaluation of whether NAR should support a federal all-natural-catastrophe-perils (All Cat Perils) insurance mandate and to determine the magnitude of the cross-subsidization that would exist between states if a single rate were to be charged for natural perils catastrophe (cat) risk.

NAR is evaluating an All Cat Perils program to understand whether the cost to homeowners of insuring for natural disasters could be decreased by mandating, and possibly cross-subsidizing, coverage across a large pool of insureds and perils.

This executive summary contains a discussion of the project scope and key findings, followed by a summary of alternatives to an All Cat Perils program, and ends with a closing discussion summarizing the results. The appendix of this report provides a more in-depth description of the data, methods, and assumptions underlying these results, as well as exhibits that document the calculations within.

SCOPE OF ANALYSIS

The scope of this analysis is to evaluate the cost of an All Cat Perils mandate and the degree of cross-subsidization that would be created if there were a mandate to offer catastrophe coverage to everyone at the same rate.

At NAR's request, catastrophe exposure is defined as hurricane wind, earthquake (shake only), flood (both inland flood and storm surge), severe convective storm (tornado, hail, and catastrophic straight-line wind), and wildfire; it excludes all other perils. The analysis includes single-family owner-occupied homes in the United States, and excludes homes in Alaska, the District of Columbia, Hawaii, and territories of the United States. Any reference to "countrywide" in this report reflects this list of included states.

Estimated average premiums by state and countrywide are developed using average annual losses (AALs) by cat peril and expense assumptions based on insurance industry financial data. AALs are calculated using catastrophe models for a countrywide set of representative homes with coverages typical of a homeowners insurance policy. Premium subsidies are calculated assuming one rate for the amount of coverage purchased for the entire country, and then comparing it to the estimated average premium for the state.

KEY FINDINGS

The estimated cost of insuring all single-family owner-occupied homes countrywide is $85.1 billion annually, or $1,269 per each home insured, for all cat perils combined. Figure 1 shows the average countrywide premium breakdown by peril.

The perils of wildfire, severe convective storm, and hurricane wind are all typically covered by homeowners insurance policies today. This means that if an All Cat Perils program were created, some of the cost for the program could be offset given these perils would no longer be covered by homeowners policies. However, the inclusion of earthquake and flood coverage would significantly increase the total insurance costs for homeowners as they are the two most expensive perils to insure on a countrywide basis.

FIGURE 1: AVERAGE COUNTRYWIDE PREMIUM BREAKDOWN
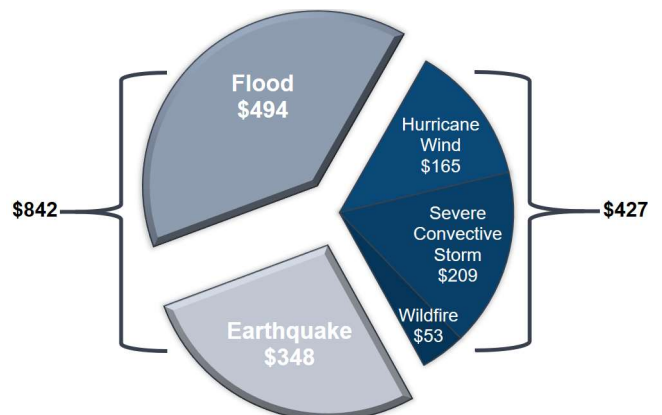
An alternative to an All Cat Perils program would be to only mandate flood and earthquake insurance, as they are the only perils in this study that are mostly uninsured by homeowners today. The estimated cost of insuring flood and earthquake for all single-family owner-occupied homes totals $56.1 billion annually, or $842 for each home insured. A mandatory program for flood and earthquake only would not be significantly offset by a decrease in other insurance costs for most homes in our study, because most homeowners do not have coverage for these perils today.

Figure 2 shows the impact of this alternative on an unsubsidized basis, compared to estimates of current National Flood Insurance Program (NFIP) premium purchased. We estimate that 98% of homeowners would pay more in annual premiums if flood and earthquake coverage were mandated.

The 97% of homeowners who do not have an NFIP policy would pay an average of $727 more in annual premiums under this scenario. An additional 1% of homeowners who already have an NFIP policy would pay much more, an average of $5,906 more in annual premiums. However, 2% of homeowners would pay less for flood and earthquake coverage than for their current NFIP policies today.

When interpreting Figure 2, two additional considerations are as follows:

- To the extent that homeowners have earthquake insurance or private (non-NFIP) flood insurance already, they may see a smaller cost increase, or larger cost decrease, than shown in Figure 2, which only considers NFIP premiums. However, the earthquake peril is often uninsured today and private flood insurance policies are significantly less common than NFIP policies.

- The flood and earthquake premiums developed in our analysis assume full coverage similar to a homeowners policy, which is often more coverage than provided under the NFIP today. Though insureds would typically receive more coverage in the mandatory scenario we have presented, there would be a cost for that coverage, which is accounted for in the premiums below.

FIGURE 2: IMPACT OF MANDATING FLOOD AND EARTHQUAKE COVERAGE WITHOUT SUBSIDIZATION, COMPARED TO CURRENT NFIP PREMIUMS
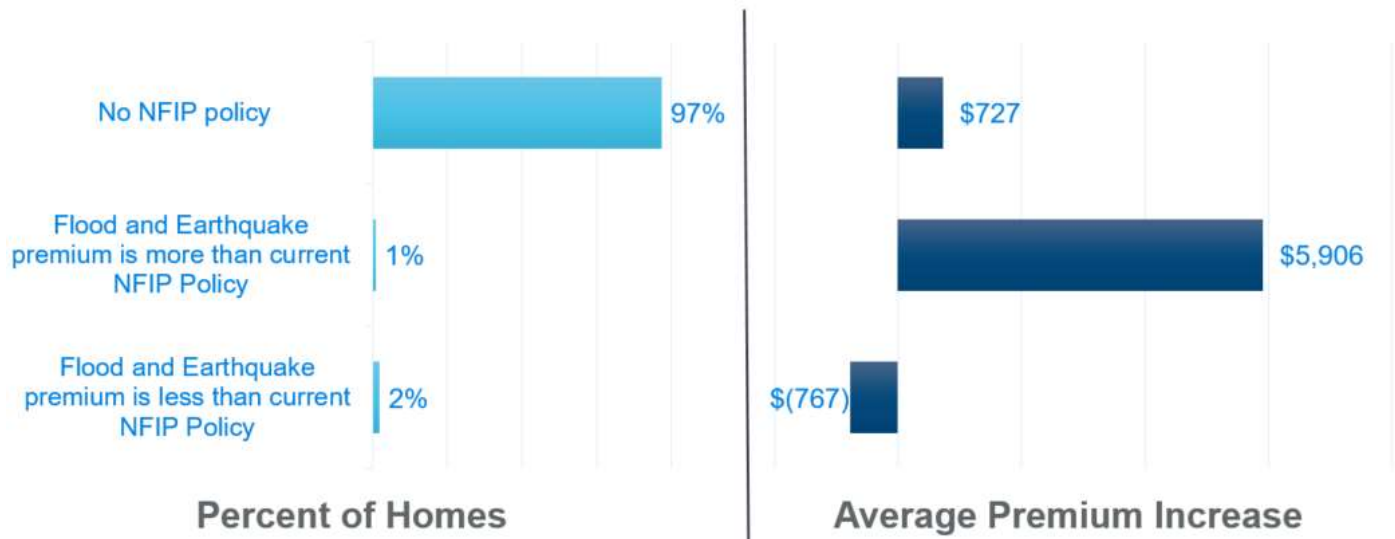
Figure 3 compares the costs of mandating flood and earthquake insurance in an unsubsidized versus subsidized manner. The current average homeowners premium[1] for each state is shown for comparison with the flood and earthquake premiums. The subsidized scenario includes charging a single rate per coverage amount countrywide. In total, subsidization raises the average flood and earthquake premium charged for 37 states and decreases the average for 11. California and Louisiana would have the largest reductions in average flood and earthquake premium in a subsidized versus an unsubsidized scenario.

FIGURE 3: IMPACT OF MANDATING FLOOD AND EARTHQUAKE COVERAGE WITH AND WITHOUT SUBSIDIZATION

State	Current Avg Homeowners Premium	Unsubsidized		Subsidized		
		Average Premium: Earthquake + Flood	Average Rate Change (%)	Average Premium: Earthquake + Flood	Average Rate Change (%)	Subsidy received (paid)
AL	$1,386	$302	21.8	$641	46.2	($339)
AR	1,348	435	32.3	607	45.0	(172)
AZ	803	307	38.2	778	96.9	(471)
CA	1,000	3,456	345.6	1,167	116.7	2,289
CO	1,446	306	21.2	926	64.0	(620)
CT	1,455	592	40.7	1,132	77.8	(540)
DE	816	449	55.1	912	111.7	(463)
FL	1,918	1,608	83.9	791	41.2	818
GA	1,200	304	25.4	772	64.4	(468)
IA	945	207	21.9	646	68.4	(439)
ID	703	384	54.6	734	104.4	(350)
IL	1,042	305	29.3	932	89.4	(627)
IN	1,003	228	22.7	676	67.4	(448)
KS	1,548	215	13.9	672	43.4	(456)
KY	1,085	401	37.0	644	59.3	(243)
LA	1,967	1,847	93.9	649	33.0	1,198
MA	1,451	427	29.4	1,199	82.6	(771)
MD	1,022	218	21.4	964	94.3	(745)
ME	866	1,015	117.2	828	95.6	187
MI	952	205	21.5	758	79.7	(553)
MN	1,340	206	15.4	843	62.9	(637)
MO	1,280	325	25.4	732	57.2	(407)
MS	1,525	397	26.0	583	38.2	(186)
MT	1,130	587	52.0	738	65.3	(151)
NC	1,098	415	37.8	719	65.5	(305)
ND	1,239	256	20.7	692	55.9	(436)
NE	1,402	148	10.5	624	44.5	(476)
NH	965	718	74.4	934	96.8	(216)
NJ	1,174	674	57.4	1,183	100.7	(509)
NM	996	341	34.3	735	73.8	(394)
NV	742	666	89.7	874	117.8	(208)
NY	1,309	565	43.2	1,043	79.7	(478)
OH	850	196	23.1	710	83.5	(513)
OK	1,875	229	12.2	614	32.7	(385)
OR	659	930	141.1	838	127.1	92
PA	927	414	44.7	828	89.3	(413)
RI	1,496	232	15.5	1,001	66.9	(769)
SC	1,285	1,291	100.4	727	56.6	563
SD	1,125	264	23.5	655	58.2	(391)
TN	1,185	464	39.2	676	57.0	(212)
TX	1,937	925	47.8	690	35.6	235
UT	664	1,020	153.6	818	123.2	202
VA	966	370	38.3	906	93.8	(535)
VT	898	979	109.0	919	102.3	60
WA	822	1,152	140.2	933	113.5	219
WI	762	186	24.4	778	102.1	(592)
WV	917	678	73.9	647	70.6	31
WY	1,120	607	54.2	740	66.0	(133)
Total	1,218	$842	69.1	$842	69.1	$0

[1] National Association of Insurance Commissioners (2018). Dwelling Fire, Homeowners Owner-Occupied, and Homeowners Tenant and Condominium/Cooperative Unit Owner's Insurance Report: Data for 2016.

As shown in Figure 4, 37 states would again subsidize 11 remaining states in an All Cat Perils mandate where everyone paid the same rate.

FIGURE 4: ALL CAT PERILS PREMIUM SUBSIDIES BY STATE

State	Average All CAT Perils Premium		Subsidy received (paid)
	Unsubsidized	Subsidized	
AL	$873	$966	($93)
AR	945	915	30
AZ	654	1,173	(519)
CA	3,750	1,759	1,991
CO	1,097	1,396	(299)
CT	891	1,706	(815)
DE	625	1,375	(750)
FL	2,842	1,192	1,650
GA	602	1,164	(562)
IA	642	975	(332)
ID	836	1,107	(271)
IL	613	1,405	(792)
IN	533	1,019	(487)
KS	1,354	1,013	342
KY	740	971	(231)
LA	3,029	978	2,051
MA	795	1,807	(1,012)
MD	382	1,453	(1,071)
ME	1,155	1,249	(94)
MI	306	1,143	(837)
MN	725	1,270	(545)
MO	868	1,104	(236)
MS	1,045	879	166
MT	918	1,113	(195)
NC	808	1,085	(276)
ND	639	1,044	(405)
NE	911	940	(29)
NH	832	1,408	(576)
NJ	898	1,783	(885)
NM	821	1,108	(287)
NV	906	1,318	(412)
NY	802	1,573	(771)
OH	371	1,070	(699)
OK	1,329	925	404
OR	990	1,263	(273)
PA	518	1,248	(730)
RI	804	1,509	(705)
SC	1,877	1,097	780
SD	712	988	(276)
TN	852	1,019	(167)
TX	1,679	1,040	638
UT	1,459	1,233	226
VA	584	1,366	(782)
VT	1,030	1,385	(355)
WA	1,185	1,407	(221)
WI	402	1,173	(772)
WV	800	976	(176)
WY	1,324	1,115	209

Regardless of subsidization, an All Cat Perils program would be expected to pay out about half of its claims to just four states, as shown in Figure 5. The differing size of cat losses across the country is why the subsidization scenarios tend to result in a few states being subsidized by many others.

FIGURE 5: EXPECTED CAT LOSSES PAID: HIGHEST FOUR STATES COMPARED TO THE REMAINDER OF THE COUNTY

California 21%
Florida 14%
Texas 12%
Louisiana 3%
Remainder of Country 50%
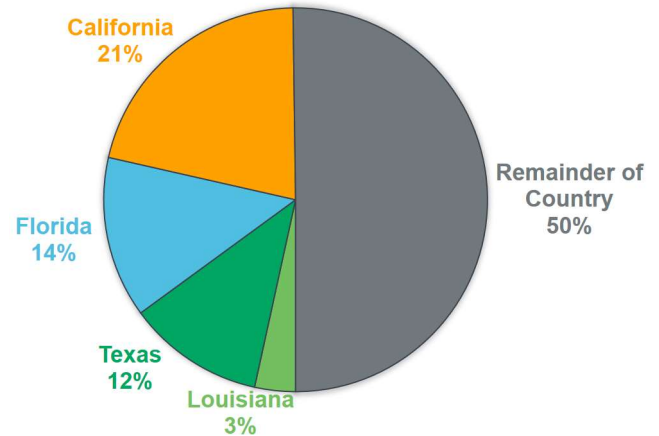
Further alternatives

The above analysis discussed both a mandatory All Cat Perils option, and a mandatory flood and earthquake coverage option. Figure 6 evaluates additional options based on various combinations of perils; it shows total cost, cost per single-family owner-occupied home, and cost per person. The cost per single-family owner-occupied home is presented to evaluate the average cost of the program for those insured. NAR also requested a review of financing scenarios that spread the cost across a broader base than those receiving insurance benefits. The cost per person metric represents the most that the cost of a catastrophe insurance program can be spread, by dividing the total cost across the entire population of the United States.

FIGURE 6: RANGE OF COSTS BY PERIL

Peril(s) Insured	Total Cost ($B)	Cost per Single-Family Owner-Occupied Home	Cost per Person
Wildfire	$3.5	$53	$11
Hurricane Wind	11.1	165	35
Severe Convective Storm	14.0	209	44
Earthquake	23.3	348	73
Flood	33.1	494	103
Flood and Earthquake	56.4	842	176
All Cat Perils	85.1	1,269	266

Additional implications

Implementation of an All Cat Perils program would require a significant amount of total annual funding, estimated as $85.1 billion in this report, which would amount to $1,269 per home insured. Further, our analysis only covers single-family owner-occupied homes. Providing coverage for other residential properties (such as condominiums, apartments, townhomes, and multifamily units) would require a higher amount of total annual funding.

If an All Cat Perils insurance program were implemented, on average, single-family owner-occupied homeowners would see homeowners premiums decrease to cover those costs. However, the cost of flood and earthquake insurance would mostly be an additional expense as most homeowners are uninsured for these perils today. Flood and earthquake are also the most expensive risks to insure within this study, costing a combined $842 per home insured.

Scenarios explored in this paper show that cross-subsidization, whether for an All Cat Perils program or a flood and earthquake-only program, would create significant subsidies due to the uneven distribution in expected cat costs across states.

Appendix: Methodology and Exhibits

AAL AND ESTIMATED AVERAGE PREMIUM

AALs were calculated for each sample risk in a market basket by running the market baskets through catastrophe models. A market basket is a portfolio of hypothetical risks with a realistic distribution of the characteristics used for insurance pricing and underwriting. The locations for each risk are the actual locations of real risks in the marketplace, as well as certain characteristics of those risks. Other characteristics not specified were set to "unknown" in the catastrophe models. The catastrophe models typically treat "unknown" characteristics as a weighted average of possible values for those characteristics.

For each of the 48 states modeled, we utilized catastrophe model output obtained from the Risk Management Solutions (RMS) version 17.0 earthquake (shake only), hurricane, and severe convective storm models and KatRisk storm surge and inland flood models. RMS event sets used were stochastic event rates (time-dependent) for earthquake, long-term rates for hurricane, and high and low frequency for severe convective storm. The RMS hurricane model was used to calculated RMS storm surge, calculated as hurricane with storm surge less hurricane wind. All RMS AALs were calculated with demand surge. Storm surge was the only peril where results from both RMS and KatRisk were obtained, and we selected an average of the results from each model for this analysis. We also used wildfire AALs from CoreLogic's Risk Quantification and Engineering (RQE) 19.2

wildfire model where available, which includes 14 of the highest-risk states in the United States.

Estimated average premiums were developed using AALs from the catastrophe model output mentioned above, and expense and reinsurance assumptions from insurance industry financial statements. Please see the discussion of Exhibit 5 below for more details.

MARKET BASKETS

We developed our market baskets based on a random sample of single-family residential parcels obtained from a data vendor. The sample represents approximately 10% of all single-family residences in the study area based on census estimates of owner-occupied one-unit residences, but the sampling percentage may vary by state.

We used the parcel data categories of year built, living area, and number of stories where we found the data to be reasonable. Otherwise unknown values from each modeler were used for these distributions.

The coverage A is the amount of insurance purchased for the replacement cost of the dwelling. To obtain the coverage A for each location, we adjusted an estimate of the market value of the property obtained from parcel data based on the state's actual distribution of coverage A, as obtained from the National Association of Insurance Commissioners (NAIC) report "Dwelling Fire, Homeowners Owner-Occupied, and Homeowners Tenant and Condominium/Cooperative Unit Owner's Insurance Report: Data for 2015."

Limits for other structures (coverage B), contents (coverage C), and loss of use (coverage D) were selected as 10%, 50%, and 20% of building limits, respectively. These limits are common base coverage options for homeowners policies. A single deductible of 1% of the building limit was also selected. These selections are not always typical for each peril. For example, earthquake policies have much higher deductibles in California. The selections were made assuming consistent coverages across perils for a national catastrophe program.

Estimates of which homes have NFIP policies were derived by overlaying the market basket with NFIP take-up rates derived from OpenFEMA data. NFIP premiums were calculated for the market basket using April 2020 NFIP rates.

EXHIBIT 1: PREMIUM SUBSIDY BY STATE AND PERIL

Exhibit 1 calculates the premium subsidy by state and peril. The premium subsidy for each state/peril combination is calculated as

the difference between the subsidized premium from Exhibit 2 and the unsubsidized average premium from Exhibit 3.

A positive value indicates a state would receive a subsidy for that peril. Conversely, a negative value indicates the state would pay a subsidy for that peril.

The perils analyzed are shown both separately and grouped together for certain combinations (i.e., All Cat Perils, flood peril only, and earthquake and flood combined).

EXHIBIT 2: COVERAGE A ADJUSTED SUBSIDIZED PREMIUM BY STATE AND PERIL

Exhibit 2 calculates the countrywide estimated rate per $1,000 of coverage A by dividing the estimated average premium by the average countrywide coverage A divided by $1,000, as displayed in the bottom row of the exhibit. The countrywide rate by peril is applied to the average coverage A for each state to determine each state's subsidized premium. We chose this formula so that the premium is based on a common rate for the amount of coverage purchased. For example, a policy with $400,000 of coverage A would cost twice the premium of a policy with $200,000 of coverage A.

EXHIBIT 3: ESTIMATED AVERAGE UNSUBSIDIZED PREMIUM BY STATE AND PERIL

Exhibit 3 combines the AALs from Exhibit 4 with the expenses from Exhibit 6, to determine the average unsubsidized premium by state and peril.

EXHIBIT 4: AVERAGE LOSS AND TOTAL AVERAGE ANNUAL LOSS BY STATE AND PERIL

Exhibit 4 displays the modeled AAL by state and peril.

EXHIBIT 5: EXPENSE, PROFIT, AND REINSURANCE SUMMARY

We used the four largest homeowners insurers by direct written premium in the United States to determine the expenses used in the development of premium by state. The expenses calculated on page 1 are:

- Commission and brokerage: Percentage of premium paid to agents and brokers for the sale of policies.
- Other acquisition: Expenses other than commissions and brokerage expenses paid to acquire business.
- General: Includes the remaining expenses associated with the insurance operations and any other miscellaneous costs.
- Taxes, licenses, and fees: Includes all taxes and miscellaneous fees paid by the insurer excluding federal income taxes (i.e., state premium taxes and licensing fees).
- Other expenses: Includes other miscellaneous expenses of the insurer.

- Loss adjustment expenses: Includes expenses paid by the insurer for the settlement of claims.

Reinsurance expenses have also been included because most private insurance companies purchase reinsurance. The National Flood Insurance Program (NFIP) also purchases reinsurance to manage its exposure to cat losses. Reinsurance cost depends on many things, including the perils covered, the attachment point and limits, the distribution of risks, and other terms and conditions of the contracts. We reviewed rate filings to select reinsurance costs reflective of industry costs to insure cat risk. For the perils of severe convective storm and wildfire, we did not include reinsurance costs given limited data availability and variance in how often and how much these perils are reinsured. However, some private insurers do reinsure these perils and there is a cost for that reinsurance.

The actual expenses incurred by an All Cat Perils or other program discussed in this paper would depend on how it is administered. Our analysis assumed that the expenses would be similar to those incurred by a private insurer.

PERIL MAPS

Following Exhibit 5, this report concludes with maps by state of the average premiums calculated in Exhibit 3 and the average premium subsidies calculated in Exhibit 1. The maps are shown for All Cat Perils, flood and earthquake combined, and for the remaining perils. Inland flood and storm surge are combined into a single map for flood.

Limitations

Use of report

The data and exhibits in this report are provided to support the conclusions contained herein, limited to the scope of work specified by NAR, and may not be suitable for other purposes. Milliman is available to answer any questions regarding this report or any other aspect of our review.

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Data reliances

In performing this analysis we relied upon information obtained from RMS, CoreLogic, KatRisk, the U.S. Census Bureau, rate filings, SNL, the Federal Emergency Management Agency (FEMA), the NAIC, and other sources. We have not audited or verified this data and information. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete. In that event, the results of our analysis may not be suitable for the intended purpose.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency. We did not find material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or relationships that are materially inconsistent. Such a detailed review was beyond the scope of our assignment.

Model reliances

Our analysis is based on multiple catastrophe models. We have reviewed the model output for reasonableness and consistency. However, no catastrophe model is entirely accurate. To the extent that one or both models are biased, the resulting analysis may be biased.

Uncertainty

We based our results on generally accepted actuarial procedures and our professional judgment. Our results reflect assumptions that are built into the catastrophe models used, as well as assumptions such as those regarding expense. However, due to the uncertainty associated with the estimation of rates and future loss payments and the inherent limitations of the data, actual results will vary from our projections. Our indications are based on long-term averages and results for any single year may vary significantly from those implied by the indications.

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Exhibit 1

National Association of Realtors
Single-Family Owner-Occupied Homeowners
Countrywide (excluding Alaska and Hawaii)

Premium Subsidy Received / (Paid)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
State	Number of Single Family Residences (Note 1)	Average Coverage A (Note 2)	Hurricane Wind (Note 3)	Severe Convective Storm (Note 3)	Wildfire (Note 3)	Inland Flood (Note 3)	Storm Surge (Note 3)	Earthquake (Note 3)	Total Flood (7) + (8)	Earthquake + Total Flood (9) + (10)	All CAT Perils Sum [(4):(9)]
AL	1,101,416	$215,625	$101	$186	($40)	$12	($102)	($249)	($90)	($339)	($93)
AR	659,197	204,247	(119)	359	(38)	64	(140)	(96)	(76)	(172)	30
AZ	1,393,031	261,709	(153)	(99)	204	4	(180)	(295)	(176)	(471)	(519)
CA	6,342,228	392,517	(229)	(282)	213	80	(270)	2,480	(190)	2,289	1,991
CO	1,234,327	311,607	(182)	451	52	(32)	(214)	(374)	(246)	(620)	(299)
CT	805,648	380,840	27	(231)	(71)	(44)	(75)	(421)	(118)	(540)	(815)
DE	229,045	306,804	(50)	(180)	(57)	(56)	(53)	(354)	(109)	(463)	(750)
FL	3,957,544	266,037	970	(130)	(8)	(49)	1,186	(319)	1,137	818	1,650
GA	2,096,369	259,888	(59)	14	(48)	(83)	(82)	(302)	(166)	(468)	(562)
IA	841,535	217,491	(127)	274	(41)	(25)	(150)	(264)	(175)	(439)	(332)
ID	389,237	247,058	(144)	(170)	394	51	(170)	(231)	(119)	(350)	(271)
IL	2,744,404	313,494	(183)	76	(58)	(66)	(216)	(345)	(282)	(627)	(792)
IN	1,661,161	227,470	(133)	136	(42)	(40)	(156)	(252)	(196)	(448)	(487)
KS	707,589	226,028	(132)	972	(42)	(28)	(155)	(273)	(183)	(456)	342
KY	1,004,884	216,626	(126)	179	(40)	123	(149)	(216)	(26)	(243)	(231)
LA	962,034	218,263	892	2	(41)	134	1,322	(258)	1,456	1,198	2,051
MA	1,346,971	403,383	103	(268)	(75)	(162)	(186)	(424)	(348)	(771)	(1,012)
MD	1,363,059	324,307	(133)	(132)	(61)	(170)	(195)	(380)	(365)	(745)	(1,071)
ME	348,303	278,654	(35)	(194)	(52)	(94)	532	(250)	437	187	(94)
MI	2,573,101	255,182	(149)	(88)	(48)	(76)	(175)	(302)	(251)	(553)	(837)
MN	1,443,394	283,536	(165)	310	(53)	(97)	(195)	(344)	(292)	(637)	(545)
MO	1,471,361	246,353	(144)	360	(46)	(57)	(169)	(180)	(227)	(407)	(236)
MS	633,449	196,171	214	174	(37)	(51)	34	(169)	(17)	(186)	166
MT	248,880	248,439	(145)	32	69	232	(171)	(212)	61	(151)	(195)
NC	2,199,310	242,051	123	(50)	(45)	26	(44)	(287)	(18)	(305)	(276)
ND	176,873	232,928	(136)	210	(43)	7	(160)	(283)	(154)	(436)	(405)
NE	478,319	209,802	(122)	608	(39)	(79)	(144)	(253)	(223)	(476)	(29)
NH	328,860	314,198	(89)	(212)	59	242	(161)	(297)	81	(216)	(576)
NJ	1,802,347	397,955	(60)	(242)	(74)	42	(124)	(427)	(82)	(509)	(885)
NM	426,850	247,288	(144)	(35)	285	17	(170)	(240)	(153)	(394)	(287)
NV	534,744	294,057	(172)	(205)	172	(5)	(202)	(1)	(207)	(208)	(412)
NY	3,034,835	350,958	(27)	(201)	(65)	11	(118)	(371)	(107)	(478)	(771)
OH	2,869,126	238,773	(139)	(2)	(45)	(71)	(164)	(278)	(236)	(513)	(699)
OK	869,197	206,500	(120)	902	7	(20)	(142)	(223)	(162)	(385)	404
OR	859,210	281,917	(164)	(202)	1	145	(194)	141	(49)	92	(273)
PA	3,239,135	278,478	(135)	(130)	(52)	106	(191)	(328)	(85)	(413)	(730)
RI	214,918	336,730	336	(209)	(63)	(226)	(167)	(375)	(393)	(769)	(705)
SC	1,077,869	244,764	274	(11)	(46)	(49)	625	(12)	575	563	780
SD	209,107	220,461	(129)	285	(41)	21	(152)	(261)	(130)	(391)	(276)
TN	1,526,599	227,411	(133)	219	(42)	57	(156)	(112)	(100)	(212)	(167)
TX	5,378,513	232,170	213	202	(11)	57	455	(277)	513	235	638
UT	623,978	275,266	(161)	(170)	355	(4)	(189)	395	(193)	202	226
VA	1,887,695	304,787	(77)	(113)	(57)	(55)	(127)	(353)	(182)	(535)	(782)
VT	160,007	309,075	(159)	(198)	(58)	589	(213)	(316)	377	60	(355)
WA	1,540,966	313,929	(183)	(229)	(29)	(37)	(216)	472	(253)	219	(221)
WI	1,446,697	261,826	(153)	22	(49)	(96)	(180)	(317)	(276)	(592)	(772)
WV	456,533	217,739	(122)	(44)	(41)	438	(150)	(257)	288	31	(176)
WY	137,000	248,859	(145)	133	353	248	(171)	(209)	77	(133)	209
Total	67,036,855	$283,268									

Notes:

1. Single Family Residences based on 2018 American Community Survey (ACS) 5 year estimates of Attached/Detached Single Family Residences.

2. Column (3) contains the average Coverage A used in modeling at a statewide level.

3. Columns (4) to (9) = Estimated Average Premium (Exhibit 3) - Coverage A Adjusted Subsidized Premium (Exhibit 2).

Exhibit 2

National Association of Realtors
Single-Family Owner-Occupied Homeowners
Countrywide (excluding Alaska and Hawaii)

Coverage A Adjusted Subsidized Premium

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
State	Number of Single Family Residences (Note 1)	Average Coverage A (Note 2)	Hurricane Wind (Note 3)	Severe Convective Storm (Note 3)	Wildfire (Note 3)	Inland Flood (Note 3)	Storm Surge (Note 3)	Earthquake (Note 3)	Total Flood (7) + (8)	Earthquake + Total Flood (9) + (10)	All CAT Perils Sum [(4):(9)]
AL	1,101,416	$215,625	$126	$159	$40	$228	$148	$265	$376	$641	$966
AR	659,197	204,247	119	151	38	216	140	251	356	607	915
AZ	1,393,031	261,709	153	193	49	276	180	321	456	778	1,173
CA	6,342,228	392,517	229	290	73	415	270	482	685	1,167	1,759
CO	1,234,327	311,607	182	230	58	329	214	383	543	926	1,396
CT	805,648	380,840	222	281	71	402	262	468	664	1,132	1,706
DE	229,045	306,804	179	227	57	324	211	377	535	912	1,375
FL	3,957,544	266,037	155	197	50	281	183	327	464	791	1,192
GA	2,096,369	259,888	152	192	48	275	179	319	453	772	1,164
IA	841,535	217,491	127	161	41	230	150	267	379	646	975
ID	389,237	247,058	144	183	46	261	170	303	431	734	1,107
IL	2,744,404	313,494	183	232	58	331	216	385	547	932	1,405
IN	1,661,161	227,470	133	168	42	240	156	279	397	676	1,019
KS	707,589	226,028	132	167	42	239	155	278	394	672	1,013
KY	1,004,884	216,626	126	160	40	229	149	266	378	644	971
LA	962,034	218,263	127	161	41	231	150	268	381	649	978
MA	1,346,971	403,383	235	298	75	426	277	495	704	1,199	1,807
MD	1,363,059	324,307	189	240	61	343	223	398	566	964	1,453
ME	348,303	278,654	163	206	52	294	192	342	486	828	1,249
MI	2,573,101	255,182	149	189	48	270	175	313	445	758	1,143
MN	1,443,394	283,536	165	210	53	300	195	348	494	843	1,270
MO	1,471,361	246,353	144	182	46	260	169	302	430	732	1,104
MS	633,449	196,171	114	145	37	207	135	241	342	583	879
MT	248,880	248,439	145	184	46	262	171	305	433	738	1,113
NC	2,199,310	242,051	141	179	45	256	166	297	422	719	1,085
ND	176,873	232,928	136	172	43	246	160	286	406	692	1,044
NE	478,319	209,802	122	155	39	222	144	258	366	624	940
NH	328,860	314,198	183	232	59	332	216	386	548	934	1,408
NJ	1,802,347	397,955	232	294	74	420	274	489	694	1,183	1,783
NM	426,850	247,288	144	183	46	261	170	304	431	735	1,108
NV	534,744	294,057	172	217	55	311	202	361	513	874	1,318
NY	3,034,835	350,958	205	259	65	371	241	431	612	1,043	1,573
OH	2,869,126	238,773	139	176	45	252	164	293	416	710	1,070
OK	869,197	206,500	120	153	39	218	142	254	360	614	925
OR	859,210	281,917	164	208	53	298	194	346	492	838	1,263
PA	3,239,135	278,478	162	206	52	294	192	342	486	828	1,248
RI	214,918	336,730	196	249	63	356	232	413	587	1,001	1,509
SC	1,077,869	244,764	143	181	46	259	168	301	427	727	1,097
SD	209,107	220,461	129	163	41	233	152	271	384	655	988
TN	1,526,599	227,411	133	168	42	240	156	279	397	676	1,019
TX	5,378,513	232,170	135	172	43	245	160	285	405	690	1,040
UT	623,978	275,266	161	203	51	291	189	338	480	818	1,233
VA	1,887,695	304,787	178	225	57	322	210	374	532	906	1,366
VT	160,007	309,075	180	228	58	326	213	380	539	919	1,385
WA	1,540,966	313,929	183	232	59	332	216	385	547	933	1,407
WI	1,446,697	261,826	153	193	49	277	180	321	457	778	1,173
WV	456,533	217,739	127	161	41	230	150	267	380	647	976
WY	137,000	248,859	145	184	46	263	171	306	434	740	1,115
Total	67,036,855	$283,268	$165	$209	$53	$299	$195	$348	$494	$842	$1,269
Overall Estimated Rate per 1000 Coverage A (Note 4)			$0.58	$0.74	$0.19	$1.06	$0.69	$1.23	$1.74	$2.97	$4.48

Notes:
1. Single Family Residences based on 2018 American Community Survey (ACS) 5 year estimates of Attached/Detached Single Family Residences.
2. Column (3) contains the average Coverage A used in modeling at a statewide level.
3. Columns (4) to (9) calculated as Overall estimated rate per 1000 Coverage A * State average Coverage A / 1000.
4. Overall Estimated Rate per 1000 Coverage A = Overall average premium by peril / (Overall average Coverage A / 1000).

Exhibit 3

National Association of Realtors
Single-Family Owner-Occupied Homeowners
Countrywide (excluding Alaska and Hawaii)

Estimated Average Unsubsidized Premium

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
State	Number of Single Family Residences (Note 1)	Hurricane Wind (Note 2)	Severe Convective Storm (Note 3)	Wildfire (Note 4)	Inland Flood (Note 5)	Storm Surge (Note 6)	Earthquake (Note 7)	Total Flood (6) + (7)	Earthquake + Total Flood (8) + (9)	All CAT Perils Sum [(3):(8)]
AL	1,101,416	$226	$345	$0	$240	$46	$15	$286	$302	$873
AR	659,197	0	510	0	280	0	155	280	435	945
AZ	1,393,031	0	95	253	280	0	26	280	307	654
CA	6,342,228	0	8	287	494	0	2,962	494	3,456	3,750
CO	1,234,327	0	681	110	297	0	9	297	306	1,097
CT	805,648	249	50	0	359	187	46	546	592	891
DE	229,045	129	47	0	268	158	23	426	449	625
FL	3,957,544	1,125	67	42	232	1,369	7	1,601	1,608	2,842
GA	2,096,369	92	206	0	191	96	17	287	304	602
IA	841,535	0	435	0	204	0	3	204	207	642
ID	389,237	0	12	440	312	0	72	312	384	836
IL	2,744,404	0	308	0	265	0	40	265	305	613
IN	1,661,161	0	305	0	200	0	28	200	228	533
KS	707,589	0	1,139	0	211	0	4	211	215	1,354
KY	1,004,884	0	339	0	351	0	50	351	401	740
LA	962,034	1,019	163	0	365	1,472	10	1,837	1,847	3,029
MA	1,346,971	338	30	0	264	92	72	356	427	795
MD	1,363,059	56	107	0	172	28	18	200	218	382
ME	348,303	127	12	0	200	723	92	923	1,015	1,155
MI	2,573,101	0	101	0	194	0	11	194	205	306
MN	1,443,394	0	520	0	202	0	4	202	206	725
MO	1,471,361	0	543	0	203	0	122	203	325	868
MS	633,449	328	319	0	156	169	72	325	397	1,045
MT	248,880	0	215	116	494	0	93	494	587	918
NC	2,199,310	265	129	0	281	123	10	404	415	808
ND	176,873	0	383	0	253	0	3	253	256	639
NE	478,319	0	763	0	143	0	5	143	148	911
NH	328,860	94	20	0	574	55	89	629	718	832
NJ	1,802,347	172	52	0	463	150	62	612	674	898
NM	426,850	0	148	331	278	0	63	278	341	821
NV	534,744	0	13	227	306	0	360	306	666	906
NY	3,034,835	178	58	0	382	123	60	505	565	802
OH	2,869,126	0	175	0	181	0	15	181	196	371
OK	869,197	0	1,055	45	198	0	30	198	229	1,329
OR	859,210	0	7	53	442	0	488	442	930	990
PA	3,239,135	27	76	0	400	0	14	400	414	518
RI	214,918	532	40	0	129	65	38	194	232	804
SC	1,077,869	417	170	0	209	793	288	1,002	1,291	1,877
SD	209,107	0	448	0	254	0	10	254	264	712
TN	1,526,599	0	387	0	297	0	168	297	464	852
TX	5,378,513	348	373	32	303	615	8	917	925	1,679
UT	623,978	0	33	406	287	0	733	287	1,020	1,459
VA	1,887,695	101	112	0	267	82	21	349	370	584
VT	160,007	21	30	0	916	0	63	916	979	1,030
WA	1,540,966	0	3	29	295	0	858	295	1,152	1,185
WI	1,446,697	0	216	0	181	0	5	181	186	402
WV	456,533	5	117	0	668	0	10	668	678	800
WY	137,000	0	317	400	511	0	96	511	607	1,324
Total (Note 3)	67,036,855	$165	$209	$53	$299	$195	$348	$494	$842	$1269

Notes:

1. Single Family Residences based on 2018 American Community Survey (ACS) 5 year estimates of Attached/Detached Single Family Residences.
2. Hurricane Wind Premium = Hurricane Wind Loss * (1 + 16.0% LAE) / (1 - 24.1% VE - 5.0% Profit - 6.9% Reinsurance).
3. Severe Convective Storm Premium = Severe Convective Storm Loss * (1 + 16.0% LAE) / (1 - 24.1% VE - 5.0% Profit).
4. Wildfire Premium = Wildfire Loss * (1 + 16.0% LAE) / (1 - 24.1% VE - 5.0% Profit).
5. Inland Flood Premium = Inland Flood Loss * (1 + 16.0% LAE) * 1.939 Reinsurance Load / (1 - 24.1% VE - 5.0% Profit).
6. Storm Surge Premium = Storm Surge Loss * (1 + 16.0% LAE) * 2.376 Reinsurance Load / (1 - 24.1% VE - 5.0% Profit).
7. Earthquake Premium = Earthquake Loss * (1 + 16.0% LAE) * 2.410 Reinsurance Load / (1 - 24.1% VE - 5.0% Profit).
8. Expense details from above calculations available in Exhibit 5.

Exhibit 4

National Association of Realtors
Single-Family Owner-Occupied Homeowners
Countrywide (excluding Alaska and Hawaii)

Average Loss

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
State	Number of Single Family Residences (Note 1)	Model Count (Note 2)	Hurricane Wind (Note 4)	Severe Convective Storm (Note 5)	Wildfire (Note 6)	Inland Flood (Note 7)	Storm Surge (Note 8)	Earthquake (Note 9)	Total Flood (7) + (8)	Earthquake + Total Flood (9) + (10)	All CAT Perils Sum [(4):(9)]
AL	1,101,416	120,000	$125	$211	$0	$76	$12	$4	$88	$92	$427
AR	659,197	70,000	0	312	0	88	0	39	88	128	439
AZ	1,393,031	150,000	0	58	154	88	0	7	88	95	307
CA	6,342,228	650,000	0	5	175	156	0	751	156	907	1,087
CO	1,234,327	130,000	0	416	67	94	0	2	94	96	579
CT	805,648	90,000	137	31	0	113	48	12	161	173	341
DE	229,045	30,000	71	29	0	85	41	6	125	131	231
FL	3,957,544	400,000	621	41	25	73	352	2	425	427	1,114
GA	2,096,369	220,000	51	126	0	60	25	4	85	89	266
IA	841,535	50,000	0	266	0	64	0	1	64	65	331
ID	389,237	40,000	0	7	269	98	0	18	98	117	393
IL	2,744,404	260,000	0	188	0	84	0	10	84	94	282
IN	1,661,161	100,000	0	186	0	63	0	7	63	70	256
KS	707,589	50,000	0	696	0	67	0	1	67	68	764
KY	1,004,884	50,000	0	207	0	111	0	13	111	123	330
LA	962,034	100,000	562	100	0	115	379	2	494	496	1,158
MA	1,346,971	140,000	186	18	0	83	24	18	107	125	330
MD	1,363,059	150,000	31	66	0	54	7	5	62	66	163
ME	348,303	40,000	70	7	0	63	186	23	249	272	350
MI	2,573,101	260,000	0	62	0	61	0	3	61	64	126
MN	1,443,394	100,000	0	318	0	64	0	1	64	65	382
MO	1,471,361	100,000	0	332	0	64	0	31	64	95	427
MS	633,449	70,000	181	195	0	49	44	18	93	111	487
MT	248,880	30,000	0	131	71	156	0	24	156	179	382
NC	2,199,310	230,000	146	79	0	89	32	3	120	123	348
ND	176,873	20,000	0	234	0	80	0	1	80	80	314
NE	478,319	50,000	0	466	0	45	0	1	45	46	513
NH	328,860	40,000	52	12	0	181	14	23	195	218	282
NJ	1,802,347	190,000	95	32	0	146	38	16	184	200	327
NM	426,850	50,000	0	91	203	88	0	16	88	104	397
NV	534,744	60,000	0	8	139	96	0	91	96	188	334
NY	3,034,835	310,000	98	36	0	120	32	15	152	167	301
OH	2,869,126	260,000	0	107	0	57	0	4	57	61	168
OK	869,197	90,000	0	645	28	63	0	8	63	70	743
OR	859,210	90,000	0	4	33	139	0	124	139	263	300
PA	3,239,135	330,000	15	46	0	126	0	4	126	130	191
RI	214,918	30,000	294	24	0	41	17	10	57	67	385
SC	1,077,869	120,000	230	104	0	66	204	73	270	343	676
SD	209,107	30,000	0	274	0	80	0	3	80	83	356
TN	1,526,599	160,000	0	237	0	94	0	43	94	136	373
TX	5,378,513	560,000	192	228	19	95	158	2	254	255	695
UT	623,978	50,000	0	20	248	90	0	186	90	276	545
VA	1,887,695	200,000	56	69	0	84	21	5	105	111	235
VT	160,007	20,000	12	18	0	289	0	16	289	305	334
WA	1,540,966	160,000	0	2	18	93	0	218	93	310	330
WI	1,446,697	100,000	0	132	0	57	0	1	57	58	190
WV	456,533	50,000	3	72	0	210	0	3	210	213	287
WY	137,000	20,000	0	194	244	161	0	24	161	185	624
Total (Note 3)	67,036,855	6,620,000	$91	$128	$32	$94	$50	$88	$144	$233	$484

Notes:
1. Single Family Residences based on 2018 American Community Survey (ACS) 5 year estimates of Attached/Detached Single Family Residences.
2. Count of records used for modeling AALs. CA Earthquake modeling was completed with 150,000 records.
3. Totals weighted based on Number of Single Family Residences (Column 2).
4. Average of modeled location AALs using RMS v17.0 long term with demand surge.
5. Average of modeled location AALs using RMS v17.0 high and low frequency with demand surge.
6. Average of modeled location AALs using CoreLogic RQE® 19.2. States with $0 AAL were not modeled.
7. Average of modeled location AALs using KatRisk.
8. Average of modeled location AALs as 50/50 weighting of KatRisk and RMS v17.0 long term with demand surge. RMS storm surge calculated as hurricane with storm surge less hurricane only.
9. Average of modeled location AALs using RMS v17.0 (shake only) stochastic event rates with demand surge.

Exhibit 5
Page 1 of 3

National Association of Realtors
Single-Family Owner-Occupied Homeowners
Countrywide (excluding Alaska and Hawaii)

Expense, Profit, and Reinsurance Summary

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Item	State Farm (SNL P&C Group) (Note 1)	Allstate Corp (SNL P&C Group) (Note 1)	USAA (SNL P&C Group) (Note 1)	Liberty Mutual (SNL P&C Group) (Note 1)	Straight Average	Median	Selected (Note 2)
A Written Premium	$18,685,957	$8,723,237	$6,835,804	$6,745,865			
B. Earned Premium	$18,461,156	$8,492,574	$6,491,911	$6,691,346			
C. Commission and Brokerage	$2,140,405	$1,031,941	$1,778	$620,902			
Commission Percentage = C / A	11.5%	11.8%	0.0%	9.2%	8.1%	10.3%	10.3%
D. Other Acquisition Expenses	$1,556,222	$419,315	$981,026	$721,460			
Other Acquisition Percentage = D / A	8.3%	4.8%	14.4%	10.7%	9.5%	9.5%	9.5%
E. General Expenses	$362,770	$333,286	$183,216	$343,056			
General Expense Percentage = E / B	2.0%	3.9%	2.8%	5.1%	3.5%	3.4%	3.4%
F. Taxes, Licenses & Fees	$476,939	$215,158	$145,522	$165,071			
Taxes, Licenses & Fees Percentage = F / A	2.6%	2.5%	2.1%	2.4%	2.4%	2.5%	2.5%
G. Other Expense (Income)	$42,691	$51,103	($8,933)	$49,750			
Other Expense Percentage = G / A	0.2%	0.6%	-0.1%	0.7%	0.4%	0.4%	0.4%
H. Variable Expense ex. Reinsurance and Profit = Sum of C to G	24.5%	23.6%	19.2%	28.2%	23.9%	24.1%	24.1%
I. Incurred Loss	$10,850,703	$4,437,388	$4,122,823	$3,409,353			
J. Loss Adjustment Expense	$1,564,218	$781,295	$382,716	$617,400			
Loss Adjustment Expense Percentage = J / I	14.4%	17.6%	9.3%	18.1%	14.9%	16.0%	16.0%
K. Profit and Contingencies (Note 3)							5.0%

Notes:
1. Source: Homeowners data, 2019 IEE Part III from State Farm (SNL P&C Group),
    Allstate Corp (SNL P&C Group), USAA (SNL P&C Group), and Liberty Mutual (SNL P&C Group). Companies selected based on
    the NAIC 2019 Market Share report https://www.naic.org/documents/web_market_share_property_casualty.pdf?17 (p.2)
    All dollar amounts in thousands.
2. Selections of C, D, E, F, G and J are based on the Median of Columns (1) to (4), rounded to 3 decimal places.
3. Profit Provision based on State Farm Remaining Profit and Contingencies load within latest approved SC filing (SFMA-130871878) and LA filing (SFMA-130873917).

Exhibit 5
Page 2 of 3

National Association of Realtors
Single-Family Owner-Occupied Homeowners
Countrywide (excluding Alaska and Hawaii)

Reinsurance Loads

(1)	(2)	(3)	(4)	(5)	(6)	(7)
			SERFF/I-File	Annual	Cost of Reinsurance	
LOB	State	Filing Company	Tracking Number	Expected Loss	Net of Recoveries and Fees	AAL Multiplier
Earthquake	CA	California Earthquake Authority	CAEQ-131351558	$352,862,000	$223,767,000	1.634
Earthquake	CA	Geovera Insurance Company	11-2233 (Note 1)	28,209,956	61,664,058	3.186
Inland Flood	SC	Palomar Specialty Insurance Company	PALO-131604953	50,000	43,600	1.872
Inland Flood	TX	American Risk Insurance Company	ARSK-132045704	577,183	288,505	1.500
Inland Flood	NC	North Carolina Rate Bureau (Note 2)	NCRI-132077608			2.446
Storm Surge	SC	Palomar Specialty Insurance Company	PALO-131604953	50,000	43,600	1.872
Storm Surge	TX	American Risk Insurance Company	ARSK-132045704	18,224	27,339	2.500
Storm Surge	NC	North Carolina Rate Bureau (Note 2)	NCRI-132077608			2.756

Selected AAL Multiplier (Note 3)	
Earthquake	2.410
Inland Flood	1.939
Storm Surge	2.376

Notes:

1. No SERFF number available. CA tracking number listed.
2. New Program, Multiplier based on projected reinsurance costs in Loss Cost Multiplier exhibit.
3. Selected AAL Multipliers based on the average of AAL Multipliers from enclosed filings above.

Exhibit 5
Page 3 of 3

National Association of Realtors
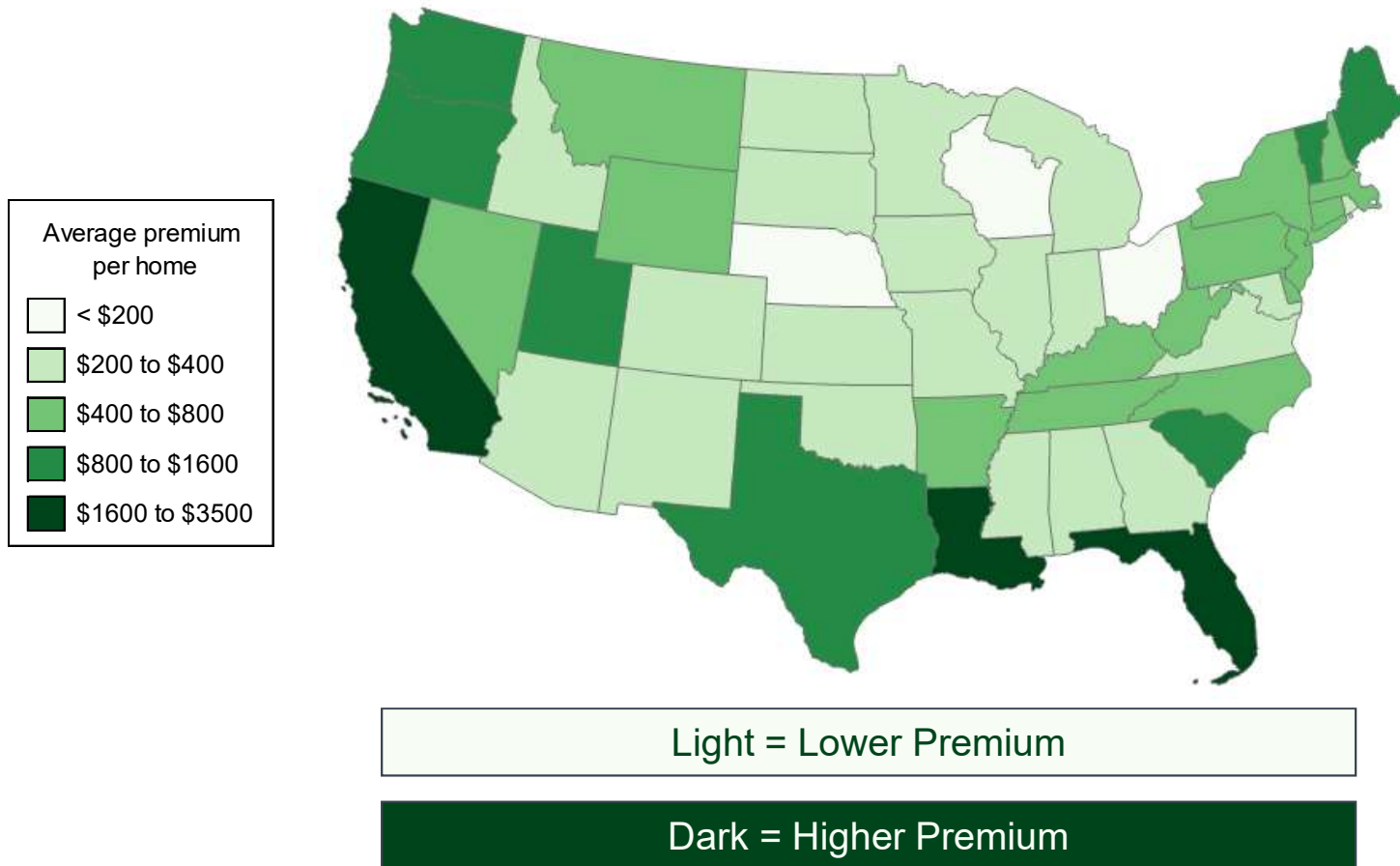Single-Family Owner-Occupied Homeowners
Countrywide

Reinsurance

Hurricane Wind Development

(1)	(2)	(3)	(4)
State	Filing Company	SERFF/I-File Tracking Number	Homeowners Reinsurance Percent of Premium
FL	Castle Key Insurance Company	17-03047	13.50%
FL	State Farm Florida Insurance Company	16-20125	8.10%
FL Average			10.80%
LA	Encompass Property and Casualty Company	ALSE-130860309	8.10%
LA	State Farm Fire and Casualty Company	SFMA-130873917	9.50%
LA Average			8.80%
SC	State Farm Fire and Casualty Company	SFMA-130871878	5.06%
SC	Allied Property and Casualty Insurance Company	NWPC-130945178	3.20%
SC Average			4.13%
TX	State Farm Lloyds	SFMA-131085699	3.70%
TX	United Services Automobile Association	USAA-130998576	4.20%
TX Average			3.95%

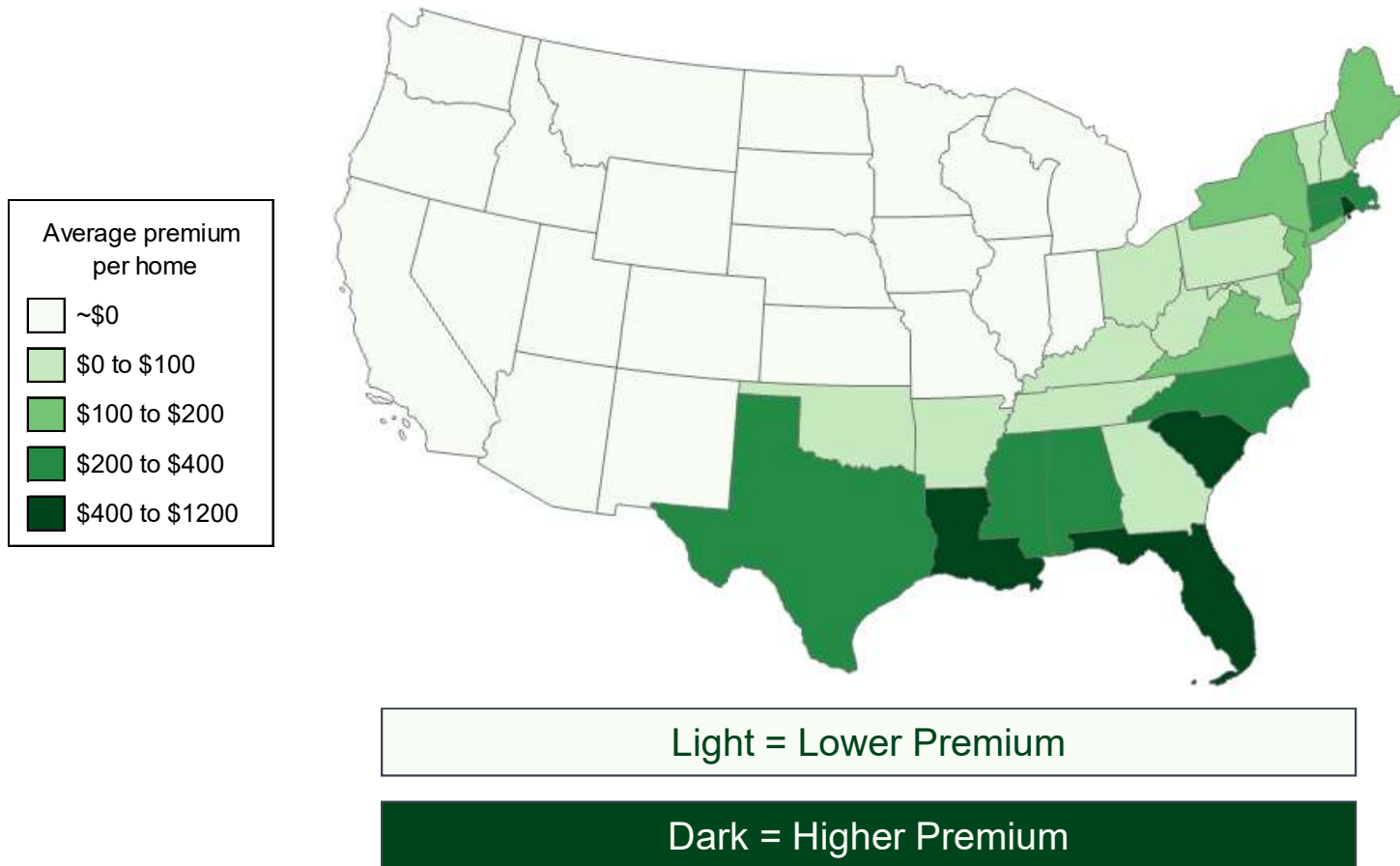|	Premium Scenario	Selected Hurricane Wind Reinsurance Percent of Premium
	Selected (Note 1)	6.9%

Notes:

1. Selected Hurricane Wind Cost of Reinsurance based on average of all listed state averages for Homeowners.
   The Homeowners programs above cover non-hurricane losses, thus the selection of the cost of reinsurance
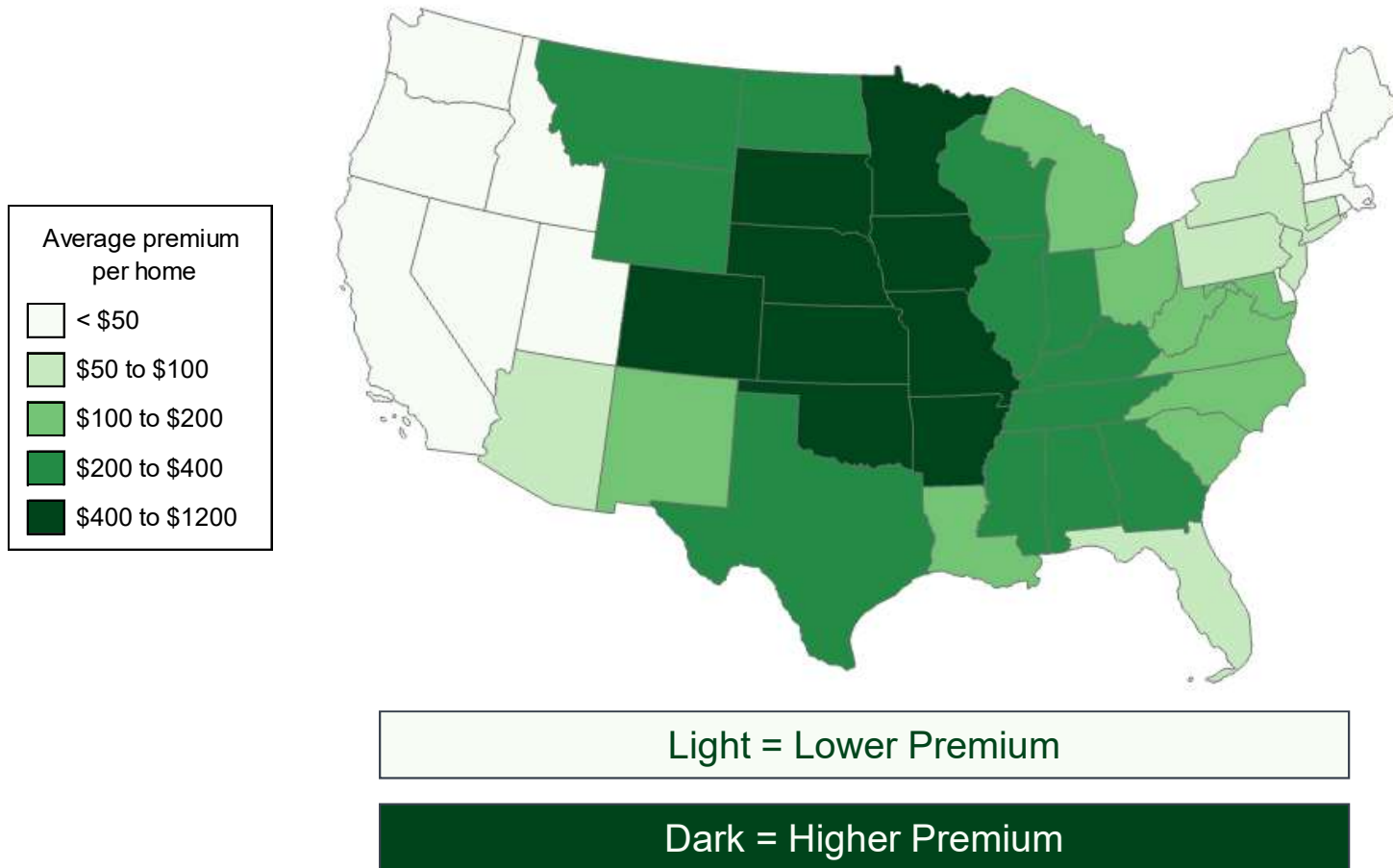
Premium by Peril: All Perils Combined
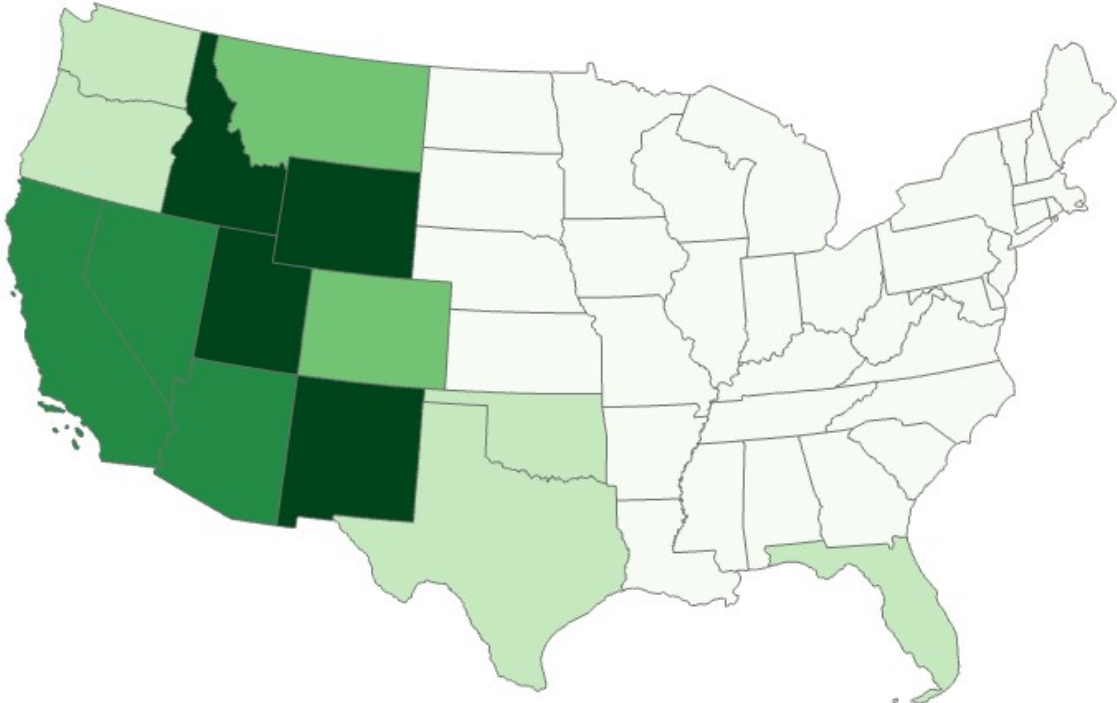
Average premium per home

- < $500
- $500 to $750
- $750 to $1000
- $1000 to $1500
- $1500 to $3800

Light = Lower Premium

Dark = Higher Premium

Premium by Peril: Earthquake and Flood

Average premium
per home

☐	< $200
☐	$200 to $400
☐	$400 to $800
☐	$800 to $1600
☐	$1600 to $3500

Light = Lower Premium

Dark = Higher Premium

Premium by Peril: Hurricane Wind

Average premium
per home

- ~$0
- $0 to $100
- $100 to $200
- $200 to $400
- $400 to $1200

Light = Lower Premium

Dark = Higher Premium

Premium by Peril: Severe Convective Storm

Average premium per home

- < $50
- $50 to $100
- $100 to $200
- $200 to $400
- $400 to $1200

Light = Lower Premium

Dark = Higher Premium

Premium by Peril: Wildfire

Average premium per home

- ~$0
- $0 to $100
- $100 to $200
- $200 to $300
- $300 to $500

Light = Lower Premium

Dark = Higher Premium

Premium by Peril: Flood

Average premium per home
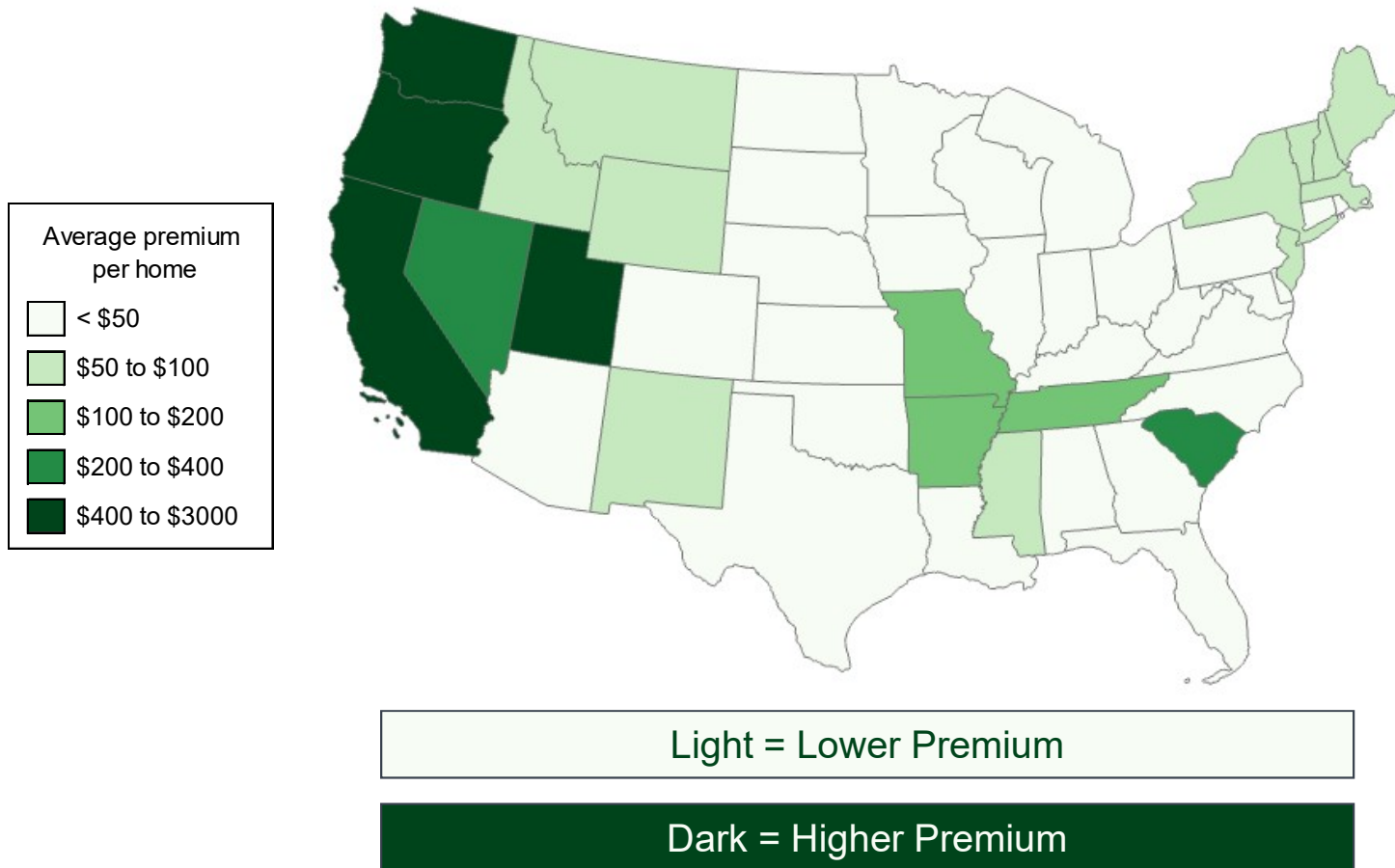
- < $100
- $100 to $200
- $200 to $400
- $400 to $800
- $800 to $1900

Light = Lower Premium

Dark = Higher Premium

Premium by Peril: Earthquake

Average premium
per home

- [ ] < $50
- [ ] $50 to $100
- [ ] $100 to $200
- [ ] $200 to $400
- [ ] $400 to $3000

Light = Lower Premium

Dark = Higher Premium

Subsidization by Peril: All Perils Combined

Average premium subsidy per home

- < -$500
- $-500 to $0
- $0 to $500
- $500 to $1000
- >$1000

Light = Subsidies paid to other states

Dark = Subsidies received from other states

Subsidization by Peril: Earthquake and Flood

Average premium subsidy per home

- < -$500
- $-500 to $0
- $0 to $500
- $500 to $1000
- >$1000

Light = Subsidies paid to other states

Dark = Subsidies received from other states

Subsidization by Peril: Hurricane Wind

Average premium subsidy per home

☐ < -$500
☐ $-500 to $0
☐ $0 to $500
☐ $500 to $1000
☐ >$1000

Light = Subsidies paid to other states

Dark = Subsidies received from other states
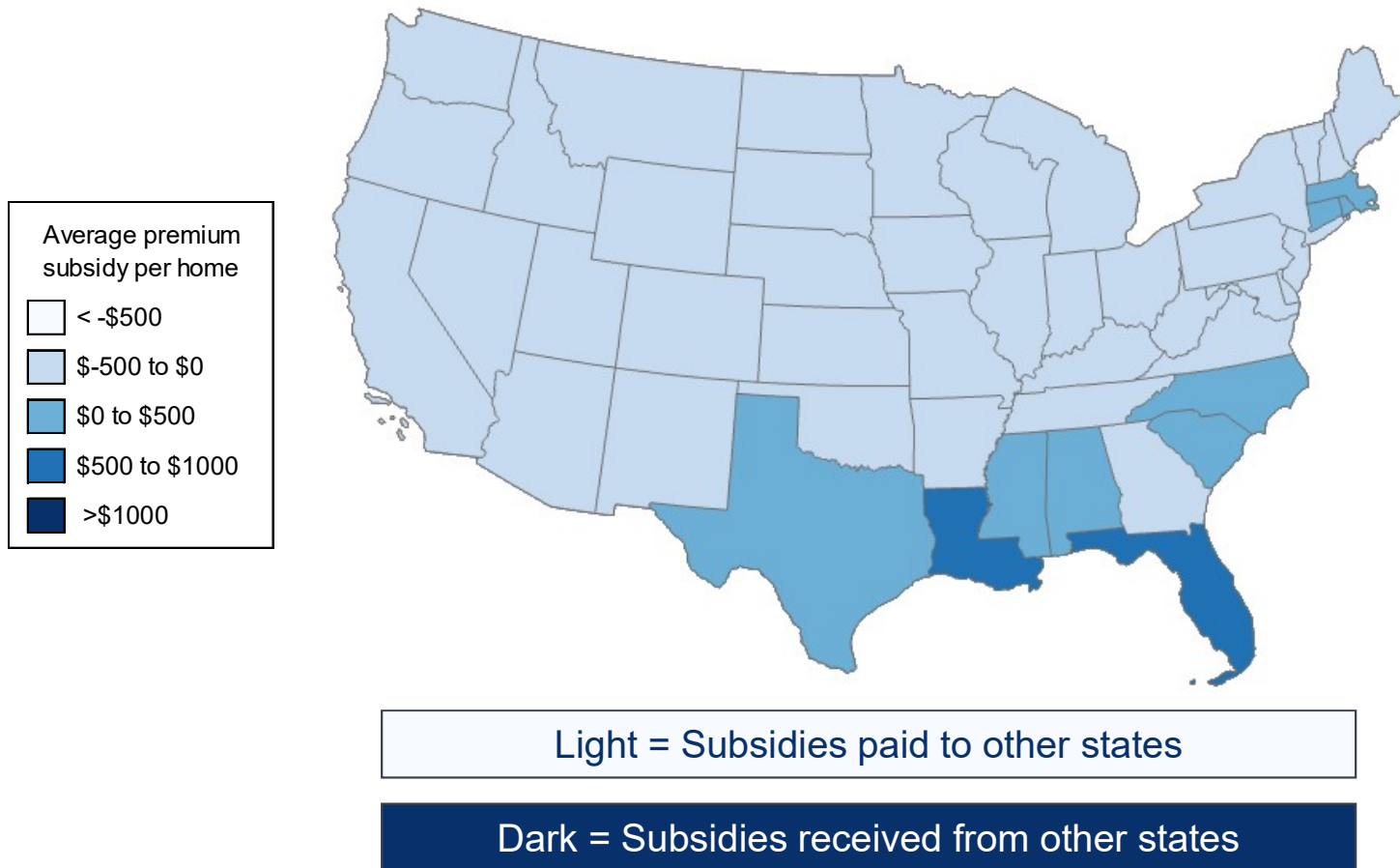
Subsidization by Peril: Severe Convective Storm

Average premium subsidy per home

- < -$500
- $-500 to $0
- $0 to $500
- $500 to $1000
- >$1000

Light = Subsidies paid to other states

Dark = Subsidies received from other states

Subsidization by Peril: Wildfire

Average premium subsidy per home

- < -$500
- $-500 to $0
- $0 to $500
- $500 to $1000
- >$1000

Light = Subsidies paid to other states

Dark = Subsidies received from other states

Subsidization by Peril: Flood

Average premium subsidy per home

- □ < -$500
- □ $-500 to $0
- □ $0 to $500
- ■ $500 to $1000
- ■ >$1000

Light = Subsidies paid to other states

Dark = Subsidies received from other states

Subsidization by Peril: Earthquake