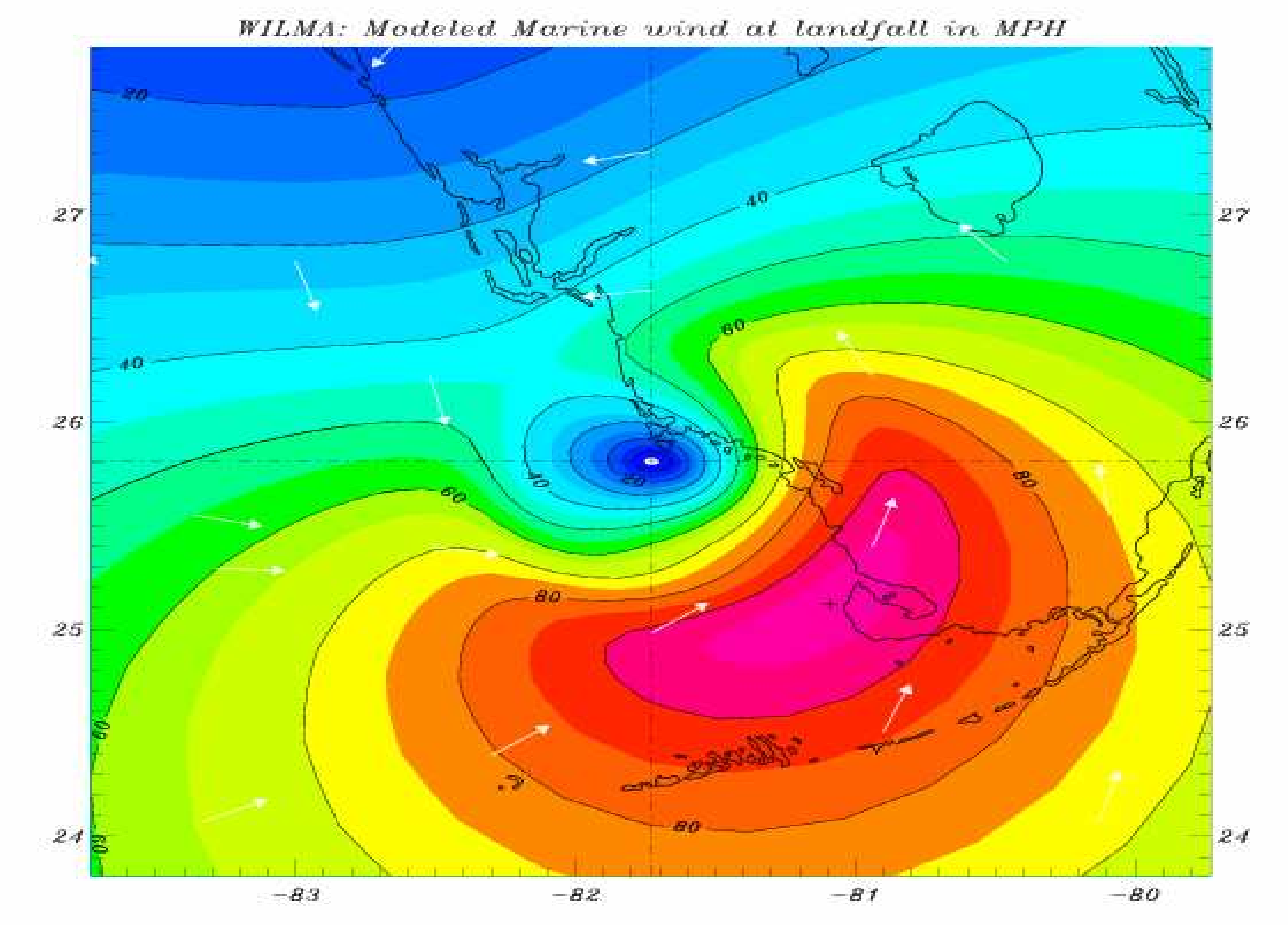
Florida
Public Hurricane Loss Model

Submitted in compliance with the 2006 Standards of the
Florida Commission on Hurricane Loss Projection Methodology
June 12, 2007



Florida Commission on
Hurricane Loss Projection Methodology

Model Identification

Name of Model and Version: Florida Public Hurricane Loss Model 2.6

Name of Modeling Organization: Florida International University

Street Address: International Hurricane Research Center, MARC 360

City, State, ZIP Code: Miami, Florida 33199

Mailing Address, if different from above: Same as above

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Date: June12, 2007

June 12, 2007

Chair, Florida Commission on Hurricane Loss Projection Methodology
c/o Donna Sirmons
Florida State Board of Administration
1801 Hermitage Boulevard, Suite 100
Tallahassee, FL 32308

Dear Commission Chairman:

I am pleased to inform you that the Florida Public Hurricane Loss Model (FPHLM) is ready for its first review by the Professional Team and certification by the Commission. The FPHLM model has been reviewed by professionals having credentials and/or experience in the areas of meteorology, engineering, actuarial science and insurance, statistics and computer science; for compliance with the Standards, as documented by the expert certification forms G1-G6.

Enclosed are 20 bound copies of our submission, which includes the summary statement of compliance with the standards, the forms, and the submission checklist. Also enclosed are 20 CDs containing the submission and forms.

Please contact me if you have any questions regarding this submission.

Sincerely,

Shahid Hamid, Ph.D, CFA
Professor of Finance, and
Director, Laboratory for Insurance, Economic and Financial Research
International Hurricane Research Center
RB 202B, Department of Finance, College of Business
Florida International University
Miami, FL 33199
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Cc: Kevin M. McCarty, Insurance Commissioner

Model Submission Checklist

1. Please indicate by checking below that the following has been included in your submission to the Florida Commission on Hurricane Loss Projection Methodology.

Yes	No	Item
X		1. Letter to the Commission
X		a. Refers to the Expert Certification Forms and states that professionals having credentials and/or experience in the areas of meteorology, engineering, actuarial science, statistics, and computer science have reviewed the model for compliance with the Standards
X		b. States model is ready to be reviewed by the Professional Team
X		c. Any caveats to the above statements noted with a complete explanation
X		2. Summary statement of compliance with each individual Standard and the data and analyses required in the Disclosures and Forms
X		3. General description of any trade secrets the modeler intends to present to the Professional Team
X		4. Model Identification
X		5. 20 Bound Copies
X		6. 20 CDs containing:
X		a. Submission text in PDF format
X		b. PDF file highlightable and bookmarked by Standard, Form, and section
X		c. Data file names include abbreviated name of modeler, Standards year, and Form name (when applicable)
X		d. Forms V-2, A-1, A-3, A-4, A-5, A-6, A-7, and S-5 (for models submitted by modeling organizations which have not previously provided the Commission with this analysis) in PDF format
X		e. Forms V-2, A-1, A-3, A-4, A-5, A-6, and A-7 in Excel format
X		f. Form S-5 (for models submitted by modeling organizations which have not previously provided the Commission with this analysis) in ASCII format
X		7. Table of Contents
X		8. Materials consecutively numbered from beginning to end starting with the first page (including cover) using a single numbering system
X		9. All tables, graphs, and other non-text items specifically listed in Table of Contents
X		10. All tables, graphs, and other non-text items clearly labeled with abbreviations defined
X		11. Standards, Disclosures, and Forms in *italics*, modeler responses in non-italics
X		12. Graphs accompanied by legends and labels for all elements
X		13. All units of measurement clearly identified with appropriate units used
X		14. Hard copy of all Forms included except Forms A-1 and S-5

2. Explanation of "No" responses indicated above. (Attach additional pages if needed.)

Florida Public Hurricane Loss Model — June 12, 2007

Model Name	Modeler Signature	Date
Florida Public Hurricane Loss Model		June 12, 2007

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Florida Public Hurricane Loss Model (FPHLM)

Item 3. General Description of Any Trade Secrets the modeler intends to present the Professional Team

The source codes will be made available for professional team for inspection.

LIST OF FIGURES

LIST OF TABLES

GENERAL STANDARDS

G-1 Scope of the Computer Model and Its Implementation

The computer model shall project loss costs for personal lines residential property from hurricane events.

The Florida Public Hurricane Loss Model estimates loss costs from hurricane events for personal lines residential property. The losses are estimated for building, appurtenant structure, content and ALE.

***G-1.1 Specify the model and program version number reflecting the release date*.**

The model name is Florida Public Hurricane Loss Model. The current version is 2.6 and the release date is June 12, 2007.

G-1.2. Provide a concise, technical description of the model including each major component of the model used to produce personal lines residential loss costs in the State of Florida. Describe the theoretical basis of the model and include a description of the methodology, particularly the wind components, the damage components, and the insured loss components used in the model. The description should be complete and not reference unpublished work.

The model is a very complex set of computer programs. The programs simulate and predict how, where and when hurricanes form, their wind speeds, intensities and sizes, etc., their tracks, how they decay and how they are affected by the terrains along the tracks after landfall, how the winds interact with different types of residential structures, how much they can damage house roofs, windows, doors, interior, and contents etc., how much it will cost to rebuild the damaged parts, and how much of the loss will be paid by insurers.

The model consists of three major components: wind hazard (meteorology), vulnerability (engineering), and insured loss cost (actuarial). It has over a dozen sub-components. The major components are developed independently before being integrated. The computer platform is designed to accommodate future hookups of additional sub-components or enhancements. Following is the description of each of the major components and their computer platforms.

Atmospheric Science Component

- **Hurricane Track and Intensity**

The storm track model generates storm tracks and intensities based on historical storm conditions and motions. The initial seeds for the storms are derived from the HURDAT database. For historical landfalling storms in Florida and neighboring states, the initial positions, intensities and motions are taken from the track fix 36 hours prior to first landfall. For historical storms that do not make landfall, the initial conditions are taken from the first track fix of the storm after it enters a threat area as a hurricane. The threat area is defined as the area enclosed by a circle of radius 560 sm centered at (83W, 29N). Small, uniform random error terms are added to the initial position, storm motion change, and to the storm intensity change. The initial conditions derived from HURDAT are recycled as necessary to generate thousands of years of stochastic tracks. After the storm is initiated, the subsequent motion and intensity changes are sampled from empirically derived probability distribution functions over the model domain (Figure 1).

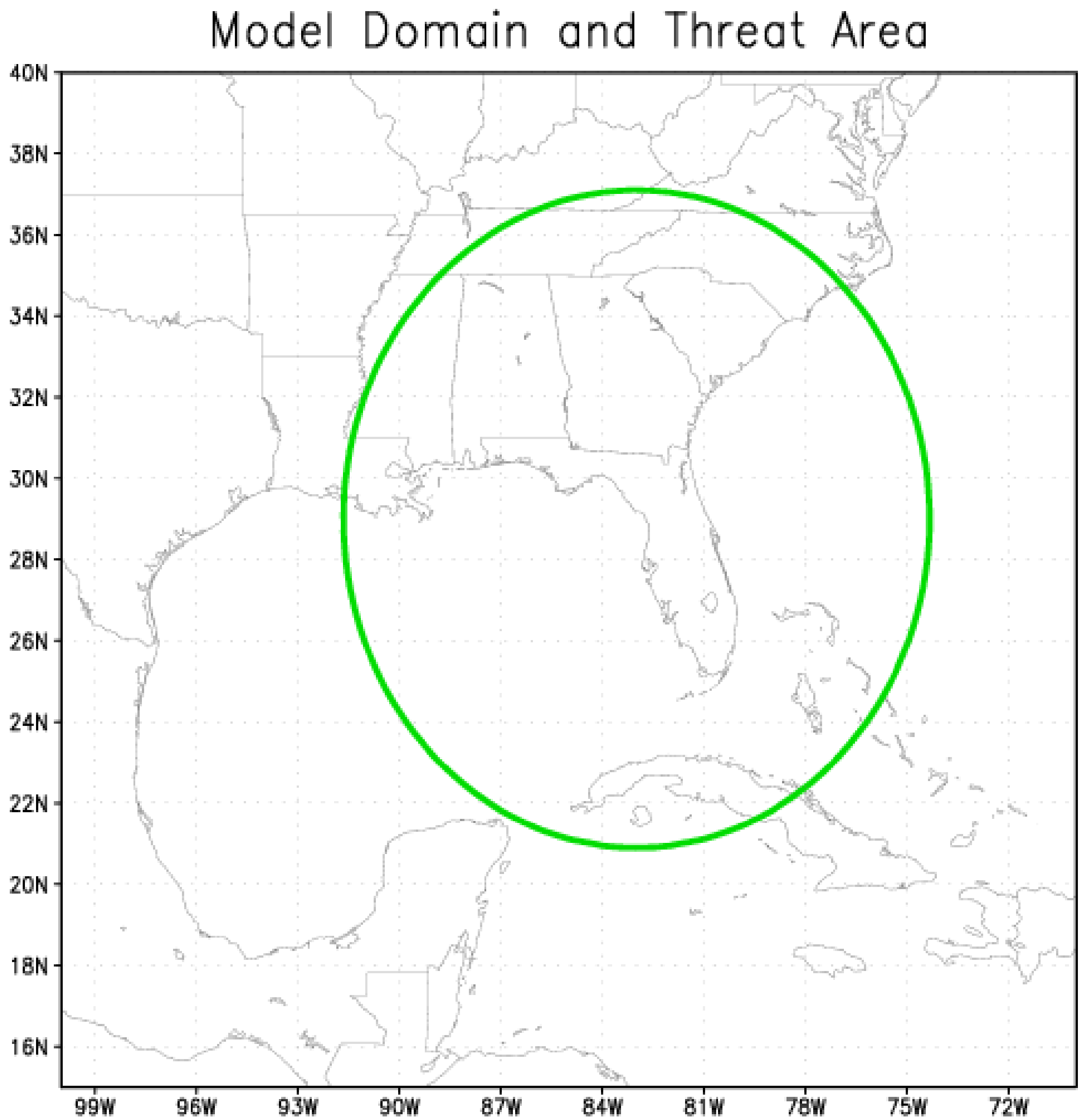

Figure 1. Florida Public Hurricane Loss Model domain and threat area

We derive discrete PDFs based on historical data from HURDAT to provide subsequent motion and intensity of the storm. A storm is simulated by repeatedly sampling from these PDFs via a Monte Carlo approach. These PDFs are derived for variable-sized regions centered at every 0.5 degree latitude and longitude in the hurricane basin. The size of these regions is determined to be that which gives a robust probability density function (PDF) for the quantities of interest (speed, direction, and intensity change), up to some maximum size. Once the storm has been given an initial condition, its subsequent evolution is governed by sampling the PDFs for change in intensity, change in translation speed, and change in heading angle in 24 hour increments. The time step is 1 hour, and storm position and velocity are determined using an assumption of constant acceleration consistent with the sampled 24 hour change. The PDFs described above were generated by parsing the HURDAT database and computing for each track the storm motion and relative intensity changes at every 24 hour interval and then binning them. Once the counts are tallied, they are then normalized to obtain the distribution function. For intensity reports for which pressure is not available, a wind pressure relation developed by Landsea et al. (2002) is used. In cases where there is no pressure report for a track fix in the historical data but there are two pressure reports within a 24 hour period that includes the track fix, the pressures are derived by linear interpolation. Otherwise the pressure is derived by using the wind-pressure relation. Extra-tropical systems, lows, waves and depressions are excluded. Intensity changes over land are also excluded from the PDFs. To insure a sufficient density of counts to represent the PDFs for each grid box, counts from nearest neighbor boxes, ranging up to 2 to 5 grid units away (both north-south and east-west direction), are aggregated. Thus the effective size of the boxes may range from 1.5 to 5.5 degrees, but are generally a fixed size for a particular variable. The sizes of the bins were determined by finding a compromise between large bin sizes, which ensure a robust number of counts in each bin to define the PDF, and small bin sizes which can better represent the detail of the distribution of storm motion characteristics. Detailed examinations of the distributions as well as sensitivity tests were done. Bin sizes need not be of equal width, and a nonlinear mapping function is used to provide unequal-sized bins. For example, most storm motion tends to be persistent, with small changes in direction and speed. Thus, to capture this detail, the bins are more fine-grained at lower speed and direction changes.

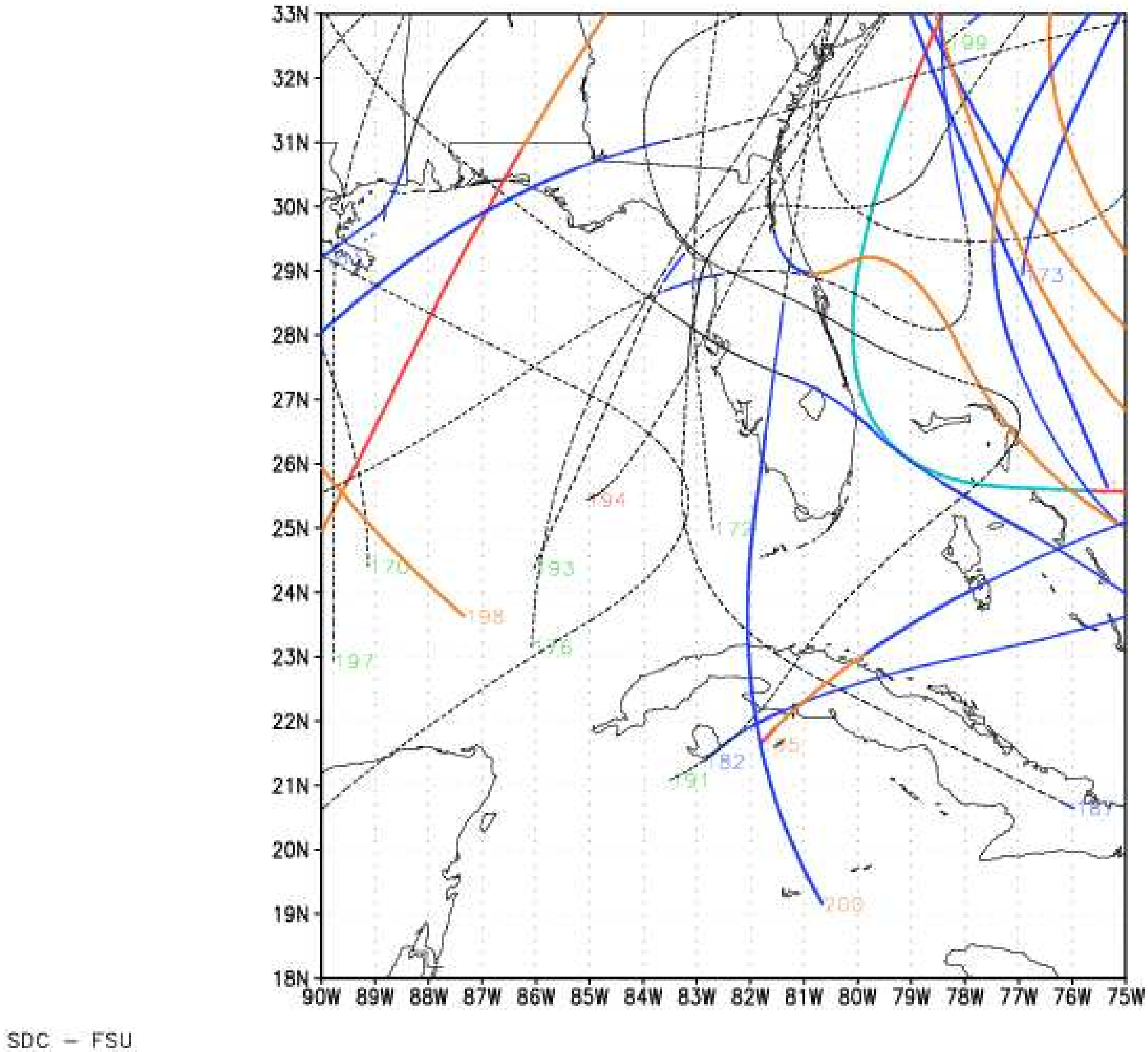

Figure 2. Examples of simulated hurricane tracks. Numbers refer to the stochastic track number, and colors represent storm intensity based on central pressure

The intensity parameter used in the wind model is DelP, the difference between the central minimum sea level pressure and an outer peripheral pressure (assumed to be 1013 mb in our model). Intensity change is modeled by using the observed geographic probability distribution of 24-hour changes of central pressure as related to the relative intensity (Darling 1990). Potential intensity takes into account the concept of the hurricane as a heat engine constrained by the input (sea surface) and outflow (upper troposphere) temperatures. Intensity change is limited so as to not exceed the maximum observed change for a particular geographic region. When a storm center crosses the coastline (landfall) the intensity change follows a pressure decay model (discussed below). If the storm moves back over the sea, the former intensity change model is reinstated. The PDFs for change in speed and direction depend on the current speed and direction (binned in discrete intervals), as well as geographic location (0.5 degree lat-lon location) and time of season (month). Storms that parallel the coast or make several landfalls can be properly simulated with our method.

Storm landfall and decay over land are determined by comparing the storm location *(x,y)* with a 0.6 sm resolution land-sea mask. This land mask is obtained from USGS land use cover data, and inland bodies of water have been reclassified as land in order to avoid spurious landfalls. Landfall occurs every time the storm moves from an ocean point to a land point as determined by this land mask. During landfall, the central pressure is modeled by a filling model described by Vickery (2005), and is no longer sampled from the intensity change PDFs. When the storm exits to sea, the land filling model is turned off and sampling of the intensity change PDFs begins again. A storm is dissipated when its central pressure exceeds 1011 mb.

- **Wind field model**

Once a simulated hurricane moves to within a threshold distance of a Florida zip code, the wind field model is turned on. The model is based on the slab boundary layer concept originally conceived by Ooyama (1969) and implemented by Shapiro (1983). Similar models based on this concept have been developed by Thompson and Cardone (1996) and Vickery et al. (1995, 2000). The model is initialized by a boundary layer vortex in gradient balance. Gradient balance represents a circular flow caused by balance of forces on the flow whereby the inward directed pressure gradient force is balanced by an outward directed Coriolis and centripetal accelerations. The coordinate system translates with the hurricane vortex moving at velocity **c**. The vortex translation is assumed to equal the geostrophic flow associated with the large scale pressure gradient. In cylindrical coordinates that translate with the moving vortex, equations for a slab hurricane boundary layer under a prescribed pressure gradient are:

$$\frac{u\partial u}{\partial r}-\frac{v^2}{r}-fv+\frac{v}{r}\frac{\partial u}{\partial \phi}+\frac{\partial p}{\partial r}-K\left(\nabla^2 u-\frac{u}{r^2}-\frac{2}{r^2}\frac{\partial u}{\partial \phi}\right)+F(\vec{c},u)=0=\frac{\partial u}{\partial t} \quad (1)$$

$$u\left(\frac{\partial v}{\partial r}+\frac{v}{r}\right)+fu+\frac{v}{r}\frac{\partial v}{\partial \phi}-K\left(\nabla^2 v-\frac{v}{r^2}+\frac{2}{r^2}\frac{\partial u}{\partial \phi}\right)+F(\vec{c},v)=0=\frac{\partial v}{\partial t} \quad (2)$$

where u and v are the respective radial and tangential wind components relative to the moving storm, p is the sea-level pressure which varies with radius (r), f is the Coriolis parameter which varies with latitude, φ is the azimuthal coordinate, K is the eddy diffusion coefficient, and F(c,u), F(c,v) are frictional drag terms (discussed below). All terms are assumed to be representative of means through the boundary layer. The motion of the vortex is determined by the modeled storm track. The symmetric pressure field p(r) is specified by the Holland (1980) pressure profile with the central pressure specified according to the intensity modeling in concert with the storm track. A model for the Holland B pressure profile parameter was developed based on a subset of the data published by Willoughby and Rahn (2004). The radius of maximum wind at landfall is modeled as a function of latitude and Pmin using a database constructed from a variety of landfall data including the NWS-38 publication, extended best track by DeMaria, and NOAA HRD archives. The wind field is solved on a polar grid with a 0.1 R/Rmax resolution. The input Rmax is adjusted to remove a bias caused by a tendency of the wind field solution to place Rmax one grid point radially outward from the input value. The slab mean boundary layer wind speed is adjusted to the surface based on reduction factors published in Powell et al., 2003 and is adjusted to maximum sustained and peak 3s gust values according to gust factors as described in Vickery and Skerlj 2005. Flow transition from marine to land or from one land roughness to another is dependent on aerodynamic roughness as modeled by Simiu and Scanlon (1996). The roughness database derived from Multi-Resolution Land Cover (MRLC) National Land Classification Database (NLCD) of 2001 (Homer et al., 2004) is used in association with the Source Area Model (Schmidt and Oke 1990, Axe 2004) to determine an upstream fetch dependent roughness value at all Florida zip codes. We corrected some anomalies where the population centroids were not near residential properties. To remedy this, we set a lower limit of roughness equivalent to that of a low intensity residential area to all land points within 0.311 miles of the centroid. For special cases where the centroid is over water, the roughness was set to that of a low intensity residential area for all points within 0.311 miles of the centroid. For coastal regions, we corrected the roughness by averaging the effective roughness for coastal fetches. Further details on the atmospheric component of the model are contained in Powell et al., 2005.

The Vulnerability Component

The vulnerability model uses a Monte Carlo simulation based on a component approach to determine the external vulnerability of buildings at various wind speeds. The simulation relates estimated probabilistic strength capacities of building components to a series of deterministic 3 sec peak gust wind speeds through a detailed wind and structural engineering analysis that includes effects of wind-borne missiles. The internal, utilities, and contents damages to the building are then extrapolated from the external damage. The resulting estimates of total building damage result in the formulation of vulnerability matrices for each building type that is statistically significant in the Florida building stock, including manufactured homes. The damage model is complemented with estimates of appurtenant structures damage, contents, and additional living expenses (ALE).

SITE BUILT MODELS

A statistical exposure study of Florida identified the most common types of single-family residential buildings in North, Central, and South Florida, in addition to the Keys. All model home types have 15 windows, a two-car garage, a front entrance door, and a sliding glass back door. Identical models are created for homes that are equipped with hurricane shutters, where window capacities are increased so that failure is much less likely.

In addition to a classification of building by structural types, it was also necessary to classify the buildings by relative strength. Residential construction methods have evolved in Florida as experience with severe winds drives the need to reduce vulnerability. To address this, the vulnerability team has developed a strong model, medium strength model, and a weak model for each site-built structural type to represent relative quality of construction.

The strong model was developed first and both the weak and medium models were derived from the strong model, using various levels of capacity within the standard model framework. For example, the standard model for south, concrete block, gable roof construction is converted to a weak model by simply lowering the roof-to-wall (r2w) connection capacity to toe-nail strength, lowering the garage capacity, and lowering the sheathing capacity. Simulations have been generated for gable roof, 1 and 2-story wood and 1-story concrete block wall, north, central and south regions. This has been repeated with plywood shutters in place. The medium models are the same as the weak ones except for the clip roof to wall connections.

MANUFACTURED HOMES MODELS

Based on the exposure study, it was also decided to model four manufactured home (MH) types. These types include: Pre -1994 - Fully Tied down; Pre-1994 - Not Tied down; Post-1994 - HUD Zone II; Post-1994 - HUD Zone III.

The partially tied down homes are assumed to have a vulnerability that is an average of the vulnerabilities of fully tied-down and not tied-down homes. Because little information is available regarding the distribution of manufactured home types by size or geometry, it is assumed that all model types are single-wide manufactured homes. The modeled single-wide manufactured homes are 56 ft x 13 ft, have gable roofs, 8 windows, a front entrance door, and a sliding glass back door.

DAMAGE MATRICES

The physical damage to single-family homes is estimated by using a component-based Monte Carlo (MC) simulation engine. The simulation estimates probabilistic strength capacities of building components as functions of 3 sec peak gust wind speeds through a detailed wind and structural engineering analysis that includes effects of wind-borne missiles. The component approach taken in the MC simulation explicitly accounts for both the uncertain resistance capacity of the various building components and the load effects produced by wind to predict damage at various wind speeds and directions. The resistance capacity of a building is broken down into the resistance capacity of its components and of their connections. The components include roof cover, roof sheathing, roof-to-wall connections, walls, windows, doors, and garage doors. Damage to the structure occurs when the load effects from wind or flying debris are greater than the component's capacity to resist them. The output of the Monte Carlo simulation model is an estimate of physical damage to structural and exterior components of the modeled home. The results are in the form of a damage matrix. Each row of the matrix lists results of one model simulation, the amount of damage to each of the 15 modeled components for a simulation being listed in 15 columns of the row (see Table 1). Each damage matrix gives the results of 5000 Monte Carlo simulations. A separate matrix is created for each peak 3-s gust wind speed between 50 and 250 mph in 5 mph increments (50, 55,…, 250 mph) at angles between 0 and 315 degrees in 45-degree increments (50 mph at 0°, 50 mph at 45°, 50 mph at 90°,...). The way the results are produced and stored for the MH models is very similar for the site-built and manufactured home models. A description of the values in each of the 9 columns of the MH damage matrix is given in Table 2.

Table 1. Description of values given in the damage matrixes for site built homes

Col.#	Description of Value	Min Value	Max Value
1	% failed roof sheathing	0	100
2	failed roof cover	0	100
3	failed roof to wall connections	0	100
4	# of failed walls	0	4
5	# of failed windows	0	15
6	# of failed doors	0	2
7	y or n failed garage	0 = no	1 = yes
8	y or n envelope breached	0 = no	1 = yes
9	# of windows broken by debris impact	0	15
10	% of gable end panels broken	0	100
11	internal pressure	0	Not defined
12	% failed wall panels – front	0	100
13	% failed wall panels – back	0	100
14	% failed wall panels – side	0	100
15	% failed wall panels – side	0	100

Table 2. Description of values given in the damage matrixes for manufactured homes

Col #	Description of Value	Min Value	Max Value
1	# of failed windows (out of 8 for single wide)	0	8
2	# of broken windows that were broken by impact load case	0	8
3	# of failed doors (front and back = 2 total)	0	2
4	% of roof sheathing failed	0	100
5	% of roof cover failed	0	100
6	% of wall sheathing failed	0	100
7	# of failed roof to wall connections (out of 58)	0	58
8	sliding (0 = no sliding, 1 = minor sliding, 2 = major sliding)	0	2
9	overturning (0 = not overturned, 1 = overturned)	0	1

Replacement cost ratios provide a key link between modeled physical damage and the corresponding monetary losses. They can be defined as the cost of replacing a damaged component or assembly of a home divided by the cost of constructing a completely new home of the same type. The sum of these ratios is greater than 100% because the replacement costs include the additional costs of removal, repair, and remodeling. Knowing the components of a home and the typical square footage, the cost of repairing all damaged components is estimated using cost estimation resources (e.g. RSMeans Residential Cost Data and CEIA) and expert advice. These resources provide cost data from actual jobs based on successful estimates and represent an average of typical conditions. Unmodeled non-structural interior, plumbing, mechanical, and electrical utilities make up a significant portion of repair costs for a home.

A very simple and explicit procedure is used to convert physical damage of the modeled components to monetary damage. Since the replacement ratio of each modeled component is known, the monetary damage resulting from damage to a component expressed as a percentage of the home's value can be obtained by multiplying the damaged percentage of the component by the component's replacement ratio. For example, if 30 % of the roof cover is damaged, and for this particular home type the replacement ratio of roof cover is 14 %, the value of the home lost as a result of the damaged roof cover would be 0.30 x 0.14 = 4.2%. If the value of this home were say $150,000, the cost to replace 30% of the roof would be $150,000 x 0.042 = $6,300. In addition, the costs will be adjusted as necessary due to certain requirements of the Florida building code that might result in an increase of the repair costs.

INTERIOR AND UTILITIES DAMAGE

For the interior and utilities of a home, there is no explicit means by which to compute damages and resulting damage. Unlike the modeled exterior components for which we know that, for each wind speed, loads in excess of the capacity will cause damage and the cost of replacing these components is fairly certain, damage to the interior and utilities occurs when the building envelope is breached allowing wind and rain to enter, and the cost of repairing this damage could be highly variable. Of all the modeled components for site-built homes, damage to roof sheathing, roof cover, walls, windows, doors, and gable ends present the greatest threat of causing interior damage. For manufactured homes, additional interior damage could be caused by sliding or overturning off the foundation.

For each wind speed, interior damage equations are derived as functions of each of the modeled components mentioned earlier. These equations are developed primarily on the basis of experience and engineering judgment. Observations of homes damaged during the 2004 hurricane season helped to validate the predictions. The interior equations are derived by estimating typical percentages of damage to each interior component given a percentage of damage to a modeled component. The interior damage as a function of each modeled component is the same for both site-built and manufactured homes.

To model the uncertainties inherent in the determination of interior damage, the output of the equations is multiplied by a random factor with mean unity. Based on engineering judgment, the factor is assumed to have a Weibull distribution with tail length parameter 2. For the factor to have mean unity, the scale parameter must be 0.7854, resulting in a variance of 0.2732. This choice of Weibull parameters is assumed to be reasonable, and a sensitivity study was done to confirm that assumption and to show that it has no effect on the mean vulnerability, as expected.

To compute the total interior damage for each model simulation, first of all, all values in the damage matrices are converted to percentages of component damage. The interior equations are applied to each component and the total interior damage for each model simulation is taken to be the maximum interior damage value produced by these equations. The maximum value is used to avoid the possibility of counting the same interior damage more than once.

The simplest and most logical method to estimate utilities damage is based upon the prediction of interior damage. To extrapolate the utilities damage, a coefficient is defined for each utility (electrical, plumbing, and mechanical), which is then multiplied by the interior equation defined for each component, and the total damage is taken to be the maximum value. The utilities coefficients are based on engineering judgment. In both site-built and manufactured homes, it is assumed that electrical damage occurs at about half the rate of interior damage, and each interior equation is multiplied by a coefficient ke=0.5. Plumbing damage is predicted in the same way as electrical damage. However, plumbing damage is assumed to occur at a slower rate than electrical damage. Therefore, the coefficient kp is set equal to 0.35 for site-built homes and for manufactured homes. It is assumed that mechanical damage will occur at a lower rate than electrical damage but at a slightly higher rate than plumbing damage. The value of km is set to 0.4 for site-built homes and for manufactured homes.

CONTENTS DAMAGE

Contents include just about anything in the home that is not attached to the structure itself. Like the interior and utilities, the contents of the home are not modeled by Monte Carlo simulations. Contents damage is assumed to be a function of the interior damage caused by each modeled component failure that causes a breach of the building envelope. The functions are based on engineering judgment and validated using actual claims data.

ADDITIONAL LIVING EXPENSES

Additional Living Expense (ALE) is coverage for the increase in living expenses that arise when an insured individual must live away from the insured damaged home. ALE coverage covers only expenses actually paid by the insured. This coverage does not pay all living expenses, only the increase in living expense that results directly from the covered damage, and having to live away from the insured location. The value of an ALE claim is obviously dependent on the time it takes to repair a damaged home as well as the surrounding utilities and infrastructure.

The equations and methods used for manufactured and residential homes are identical. However, it seems logical to reduce the manufactured home ALE predictions because typically a faster repair or replacement time may be expected for these home types. Therefore, a factor Rf was introduced into the manufactured home model. This Rf factor is now set at 0.75 based on engineering judgment, and it multiplies the ALE predictions to adjust the values.

APPURTENANT STRUCTURES

Appurtenant structures, typically, are structures not attached to the dwelling or main residence of the home, but located on the insured property. These types of structures could include: detached garages, guesthouses, pool houses, sheds, gazebos, patio covers, patio decks, swimming pools, spas, etc. From insurance claims data there appears to be no obvious relationship between building damage and appurtenant structure claims. One of the primary reasons for this maybe the variability of the structures that are covered by an appurtenant structure policy.

To model appurtenant structure damage, three separate equations were developed. Each determines the appurtenant structure insured damage ratio as a function of wind speed (vulnerability curve). One equation predicts damage for structures highly susceptible to wind damage, the second for moderately susceptible, and the third for structures which are affected only slightly by wind. As with equations to predict interior damage, a Weibull distribution is applied to account for uncertainties. In this case, the β parameter of the Weibull distribution was reduced to 1, which yields an exponential distribution. The very limited insurance data available shows a high concentration of claims with zero appurtenant loss and a very large scatter of loss elsewhere. This is indicative of an exponential distribution, which supports the decision to reduce the β parameter. Because a typical insurance portfolio file gives no indication of the type of appurtenant structure covered under a particular policy, a distribution of the three types (slightly vulnerable, moderately vulnerable, and highly vulnerable) must be assumed, and is validated against the claim data.

VULNERABILITY MATRICES

For each Monte Carlo model, 5000 simulations are performed at 8 different angles and 41 different wind speeds. This is 5000 x 8 x 41 = 1,640,000 simulations per model, which are expanded to cover interior, utilities, contents, ALE, and appurtenant structures, as explained above. The simulation results are then transformed into vulnerability matrices. A total of 168 matrices are created for every combination of structural type (frame or masonry), region (North, Central, South), sub-region (high wind velocity zone, wind borne debris region, other), and roof cover type (gable vs. hip, tile vs. shingle).

A partial example of a vulnerability matrix is shown in Table 3.

Table 3. Partial example of vulnerability matrix

Damage\Wind Speed (mph)	48.5 to 52.5	52.5 to 57.5	57.5 to 62.5	62.5 to 67.5	67.5 to 72.5
0% to 2%	1	0.99238	0.91788	0.77312	0.61025
2% to 4%	0	0.00725	0.0805	0.21937	0.36138
4% to 6%	0	0.000375	0.001375	0.007	0.0235
6% to 8%	0	0	0.000125	0.000375	0.0025
8% to 10%	0	0	0	0	0.000375
10% to 12%	0	0	0	0	0.000375
12% to 14%	0	0	0	0	0.000625
14% to 16%	0	0	0	0	0.0005
16% to 18%	0	0	0	0	0.000125
18% to 20%	0	0	0	0	0.000125
20% to 24%	0	0	0	0	0.00025
24% to 28%	0	0	0	0	0

The cells of a vulnerability matrix for a particular structural type represent the probability of a given damage ratio occurring at a given wind speed. The columns of the matrix represent the different wind speeds from 50 mph to 250 mph in 5 mph increments. These are 3-s gust wind speeds at a 10 m height. The rows of the matrix correspond to damage ratios (DR) in 2 % increments up to 20 %, and then in 4 % increments up to 100 %. At each wind speed, the number of instances of damage within each damage range are counted. For example, if a damage ratio is DR= 15.3%, it is assigned to the interval 14%, DR<16% with a midpoint DR=15 %. After all the simulations have been counted, the total number of instances in each damage interval is divided by the total number of simulations per wind speed to determine the percentage of simulations at any damage state occurring at each speed. These percentages are the conditional probabilities of occurrence of a level of damage, given a certain wind speed.

One important plot derived from the vulnerability matrix is the vulnerability curve. The vulnerability curve for any structural type is the plot of the mean or average damage ratio per wind speed vs. wind speed. The model can also generate fragility curves for each vulnerability matrix, although these curves are not used in the model. Fragility curves are curves that represent the probability of exceedance of any given damage level, as a function of the wind speed.

Similar vulnerability matrices, and vulnerability curves, are developed for contents, and ALE, one for each structural type. Since the appurtenant structures damage is not derived from the building damage, only one vulnerability matrix is developed for appurtenant structures. The whole process is also repeated for manufactured homes.

Building vulnerability matrices were created for every combination of region (Keys, South, Central, and North), construction type (masonry, wood, or other), roof type (gable or hip), roof cover (tile or shingle), shutters (with or without), and sub-region (standard, windborne debris region, and high velocity zone). However, in general, there is little information available in an insurance portfolio file regarding the structural characteristics and the wind resistance of the insured property. Instead, insurance companies rely on the so-called ISO classification, which is primarily used to define the fire resistance of a home. In addition to the ISO classification, portfolio files will have information on zip code and year built. The ISO classification is used to determine if the home is constructed of masonry, timber, or other. The zip code is used to define the region and sub-region. The year the home was built is utilized to assist in defining whether a home should be considered weak, medium or strong. It is also used for damage predictions for mobile homes.

So from the insurance files, we can easily determine the region, sub-region, construction type, and year built. However this leaves the roof type, roof cover, and shutter options still undefined. But we know from the exposure study, the distribution of different roof types, and to some extent of roof cover per region. Also, some estimation of the percentage of homes with and without shutters in each sub-region can be made. Based on these statistics and estimates, we can define a general matrix for each construction type in each region and sub-region. The general matrices are simply the sum of the model matrices weighted on the basis of their statistical distribution. For example, if we know that a home is masonry construction and is in the windborne debris region of central FL, we also know that 66 % of the masonry homes in central FL have gable roofs and 34 % have hip roofs, around 85 % have shingle cover and 15 % tile, and 20 % have shutters while 80% do not. Weight factors can be computed for each model matrix based on these statistics. For example, the Central FL, gable, tile, no shutters, masonry matrix would have a weight factor of 66% (masonry percent gable) x 15 % (percent tile) x 80 % (percent without shutters) = 7.9%, this is the percentage of that home type that would be expected in this region.

Each model matrix is multiplied by its weight factor, and the results are summed. The final result is a weighted matrix that is a combination of all the model matrices and can be applied to an insurance policy if only the zip code, year built, and ISO classification are known. As a result, for each sub-region (standard, windborne debris region, and high velocity zone) of each region (Keys, South, Central, and North), they will be a set of weighted matrices (masonry, wood, and others) for weak, medium, and strong structures. Figure 3 shows the weighted matrices for the masonry structures in a Central sub-region.

MODELS DISTRIBUTION IN TIME

Over time, engineers and builders learned more about the interaction between wind and structures, more stringent building codes were enacted, and when properly enforced, resulted in stronger structures. The weak model, medium strength model, and standard (strong) strength model, developed by the vulnerability team, represent this evolution in time of relative quality of construction in Florida. Each set of models is representative of the prevalent wind vulnerability of buildings for a certain historical period in time. It is therefore important to define the cut-off date between the different periods, since the overall aggregate losses in any region are determined as a mixture of homes of various strengths (ages). The cut-off dates do not depend only on the evolution of the building code, but also on the prevailing local builder/community code enforcement standards in each era.

This issue of code enforcement has also evolved over time, and it is relatively recent that the State of Florida took an active role in uniform enforcement. Thus a given county may have built to standards that were worse than or exceeded the code in place at the time. After consulting with the building code development experts, the team concluded that the load provisions had some wind provisions since the 1970's, and the issue is not the code, but rather enforcement of the code. Southern construction practice recognized the importance of truss to wall connection as early as the 1950's, when it became common to use clips rather than toe nails. The clips were not as strong as modern straps, but an improvement over nails only. Northern construction suffered from the lack of impact from severe hurricanes over a long period. This sense of safety was compounded by a more localized approach to decision making. Thus northern construction is expected to be weaker than southern in general. The use of clips became relatively standard state-wide by the mid 1980's, while they were well used in the south prior to this time. The use of rated shingles and resistant garage doors became common after Andrew. Therefore, the classification shown in Table 4 was adopted for characterizing the regions by age and model.

Table 4. Age classification of the models per region

	Prior to 1970	1970 to 1983	1984 to 1993	1994 – present
All regions	½ weak, ½ medium	Medium	Medium	Strong

However, the year-built or year of last upgrade of a structure in a portfolio might not be available, when performing a portfolio analysis to estimate hurricane losses, in a certain region. In that case, it becomes necessary to assume a certain distribution of ages in the region, in order to come up with an average vulnerability between weak, medium, and strong, and estimate the resulting overall damage to a given county (or zip code).

Although the engineering team did not have detailed information on the building population of every county in Florida, they did have information on 1.5 million homes from insurance company portfolios. The portfolios include an effective year of construction, and thus provide guidance as to how to weigh the combined weak, medium and strong model results when year-built information is not available in other portfolio files. In each region, the data was analyzed to provide the age statistics. These statistics were used to weigh the average of weak, medium, and strong vulnerabilities in each region. The results are shown in Figure 3, for the wind borne debris zone in the Central region. The different weighted vulnerability curves are shown for the weak, medium, and strong models, superimposed with the age weighted vulnerability curve.

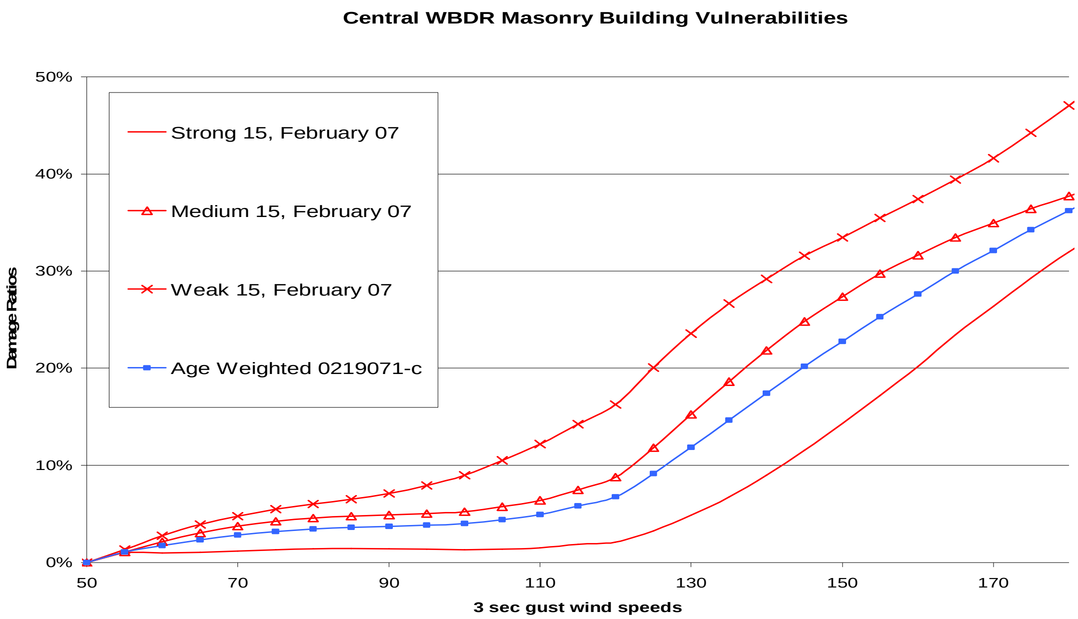

Figure 3. Weighted masonry structure vulnerabilities in the Central wind bone debris zone

Actuarial Component

Expected annual losses are estimated for individual policies in the portfolio. They are estimated for building structure, appurtenant structure, contents and ALE based on their exposures and by using the respective vulnerability matrices for the construction types. There are two methods available for estimating expected losses that theoretically produce the same results. In the first method, for each policy, losses are estimated for all the hurricanes in the stochastic set by using appropriate damage matrices and policy exposure data. The losses are then summed over all hurricanes and divided by the number of years in the simulation to get the annual expected loss. These are aggregated at the zip code, county, territory, or portfolio level and then divided by the respective level of aggregated exposure to get the loss costs. This is a computationally demanding method. Each portfolio must be run through the entire stochastic set of hurricanes.

The second method derives the probability distribution of winds for each zip code from the simulated set of hurricanes. This is done once for each zip code. These distributions are then applied directly to the damage (vulnerability) matrices, and using the insured value and deductible, the expected losses are estimated for each policy. These are then aggregated as needed.

The distribution of losses is driven by both the distribution of damage ratios generated by the engineering component and by the distribution of wind speeds generated by the meteorology component. The meteorology component provides, for each zip code, the associated probabilities for a common set of wind speeds. Thus, zip codes are essentially differentiated by their probability distribution of wind speeds. The meteorology component uses up to 50,000 year simulations to generate a stochastic set of storms. The storms are hurricane events at landfall or when bypassing close by. Each simulated storm has an estimated track and a set of modeled wind fields at successive time intervals. The wind fields generate the 1 minute maximum sustained wind speeds for the storm at various locations (population weighted zip codes centroids) along its track. These 1 minute maximum sustained winds are then converted to 3 second peak gusts winds and corrected for terrain roughness by using the gust wind model and the terrain roughness model. For each zip code population centroid, an accounting is then made of all the simulated storms that pass through it. Based on the number of pass through storms and their peak wind speeds, a distribution of the wind speed is then generated for the zip code. Based on this distribution, probabilities are generated for each 5 mph interval of wind speeds, starting at 20 mph. These 5 mph bins constitute the column headings of the damage matrices generated by the engineering component. The wind speeds are generated for the location of the population centroids of the zip codes.

The engineering group has produced vulnerability matrices. Damage ratios are grouped and intervals (or classes) of various lengths are used. Furthermore, damages probabilities for damage intervals are produced for a whole range of wind speeds. Vulnerability matrices are provided for building structure, contents, appurtenant structures and additional living expenses for a variety of residential construction type and for different policy types. The construction types are: masonry, frame, mobile home, and unknown. The vulnerability matrices are also developed for weak, medium, and strong construction as proxy by year built. Within each broad construction category, the vulnerability matrices are specific to the roof types and number of stories etc. Since the policy data do not provide this level of specificity, weighted matrices are used instead, where the weights are the proportion of different roof types in given region as determined by a survey of the building blocks and exposure data. The vulnerability matrices are used as input in the actuarial model.

To generate expected loss the model starts with a given set of exposure, determine their zip codes and construction types and extract relevant meteorology, engineering and insurance data. The starting point for the computations is the vulnerability matrix with its set of damage intervals and associated probabilities. For a given a wind speed, for each of the mid point of the damage intervals the ground up loss is computed, deductibles and limits are applied, and the loss net of deductible is calculated. Care is taken to ensure that net of deductible losses are non-negative. The net loss is multiplied by the probability in the corresponding cell to get the expected loss for the given damage ratio. The results are then averaged across the possible damages for the given wind speed. Next, the wind probability weighted loss is calculated to produce the expected loss for the property. The expected losses are then adjusted by the appropriate expected demand surge factor. The expected losses can be summed across all structures of the type in the zip code and also across zip codes to get expected aggregate loss.

Computer System Architecture

FPHLM is a large-scale system, which is designed to store, retrieve, and process huge amount of hurricane historical data and the simulated data. In addition, intensive computations are supported for hurricane damage assessment and insured loss projection. In order to achieve system robustness, flexibility, and resistance to potential change, the three-tier architecture is adopted and deployed in our system. It aims to solve a number of recurring design and development problems, and hence makes the application development work easier and more efficient. The computer system architecture consists of three layers, namely the user interface layer, application logic layer, and database layer.

The interface layer offers the user a friendly and convenient user interface to communicate with the system. It manages the input/output data and their display. To offer great convenience to the users, the system is prototyped on the Web so that the users can access the system with existing web browser software.

The application logic layer handles the controlling functionalities and manipulates the underlying logic connection of the information flows. This is the middle tier in the computer system architecture. It aims to bridge the gap between the user interface and the underlying database and to hide the technical details from the users.

The database layer is responsible for data modeling to store, index, manage, and model the information for this application. Data needed by the application logic layer are retrieved from the database, and the computation results produced by the application logic layer are stored back to the database.

Software, Hardware, and Program Structure

The system is primarily a web-based application that is hosted in Oracle 9i web application server. The backend server environment is Linux and the server side scripts are written in Java Server Pages (JSP) and Java beans. Backend probabilistic calculations are coded in C++ using IMSL library and called through Java Native Interface (JNI). The system uses an Oracle database runs on a Sun workstation. Server side software requirements are IMSL library CNL 5.0, OC4J v1.0.2.2.1, Oracle 9i AS 9.0.2.0.0A, JNI 1.3.1, and JDK 1.3.1.

The end-user workstation requirements are minimal. Internet Explorer 5.5 or 6 running on Windows 2000 or XP are the recommended web browsers. However, other web browsers such as Mozilla Firefox should also deliver the optimal user experience. Typically, the manufacturer's minimal feature for a given web browser and operating system combination is sufficient for an optimal operation of the application.

Translation from Model Structure to Program Structure

FPHLM uses a component-based approach in converting from model structure to program structure. The model is divided into distinct components or modules, i.e., Storm Forecast Module, Wind Field Module, Damage Estimation Module, and Loss Estimation Module. Each of these modules fulfills its individual functionality and communicates with other modules via well-defined interfaces. The architecture and program flow of each module are defined in its corresponding use case document following software engineering specifications. Each model element is translated into subroutines, functions, or class methods on a one-to-one basis. Changes to the models are strictly reflected in the software code.

G-1.3. Provide a flow diagram that illustrates interactions among major model components.

Error! Objects cannot be created from editing field codes.

Figure 4. Flow diagram of the computer model

***G-1.4. Provide a comprehensive list of complete references pertinent to the submission by Standard grouping, according to professional citation standards*.**

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G-1.5 Provide a detailed description of all changes in the model from the prior year's submission

This is our first submission.

G-2 Qualifications of Modeler Personnel and Consultants

A. Model construction, testing, and evaluation shall be performed by modeler personnel or consultants who possess the necessary skills, formal education, or experience to develop the relevant components for hurricane loss projection methodologies.

The model was developed, tested, and evaluated by a multi-disciplinary team of professors and experts in the fields of meteorology, wind and structural engineering, computer science, statistics, finance, economics, and actuarial science. The experts work primarily at Florida International University, Florida Institute of Technology, Florida State University, University of Florida, Hurricane Research Division of NOAA, and University of Miami.

B. The model or any modifications to an accepted model shall be reviewed by either modeler personnel or consultants in the following professional disciplines: structural/wind engineering (licensed Professional Engineer), statistics (advanced degree), actuarial science (Associate or Fellow of Casualty Actuarial Society), meteorology (advanced degree), and computer/information science (advanced degree). These individuals shall be signatories on Forms G-1 through G-6 as applicable and shall abide by the standards of professional conduct if adopted by their profession.

The model has been reviewed by modeler personnel and consultants in the required professional disciplines. These individuals abide by the standards of professional conduct if adopted by their profession.

Disclosures

1. Organization Background

A. Describe the ownership structure of the modeling organization. Describe affiliations with other companies and the nature of the relationship, if any. Indicate if your organization has changed its name and explain the circumstances.

The model was developed independently by a multi-disciplinary team of professors and experts. The lead university is the Florida International University. The model was commissioned by the FL- Office of Insurance Regulation.

B. If the model is developed by an entity other than a modeling company, describe its organizational structure and indicate how proprietary rights and control over the model and its critical components is exercised. If more than one entity is involved in the development of the model, describe all involved.

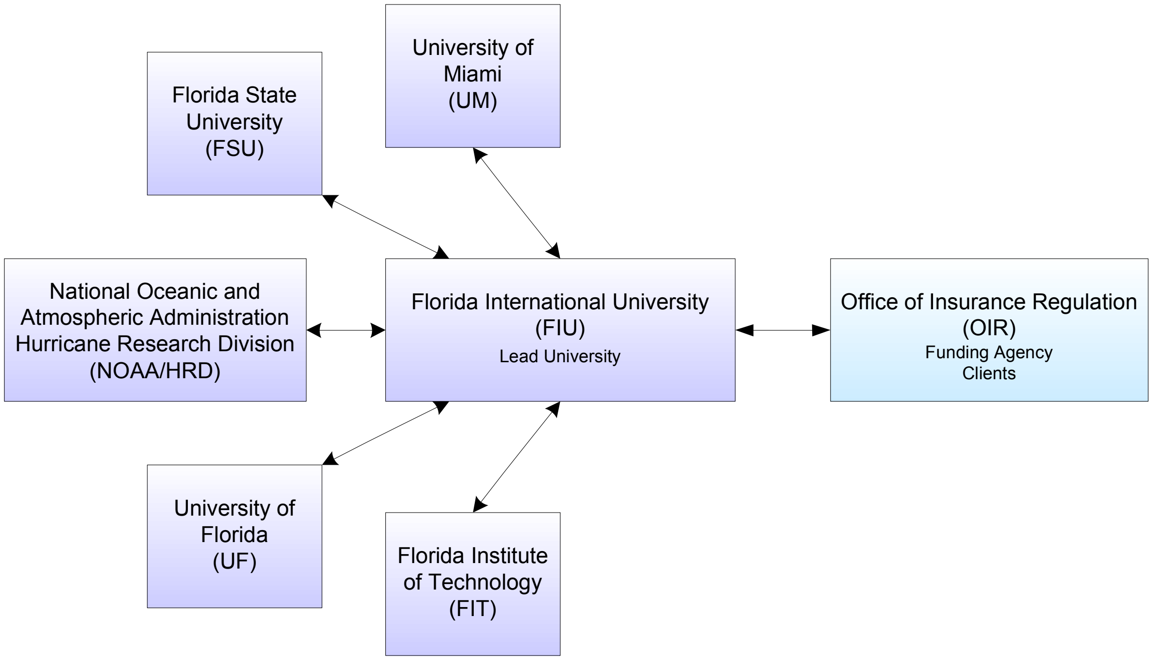

Figure 5. Organizational Structure

The Florida Office of Insurance Regulation contracted and funded Florida International University to develop the Florida Public Hurricane Loss Model. The model is based at the Laboratory for Insurance, Financial and Economic Research, which is part of the International Hurricane Research Center at Florida International University. The OIR did not influence the development of the model. The model was developed independently by a team of professor, experts, and graduate students working primarily at Florida International University, Florida Institute of Technology, Florida State University, University of Florida, Hurricane Research Division of NOAA, and University of Miami. The copyright for the model belongs to OIR, but Florida International University has long term license to operate the model for commercial purposes. Currently, FL-OIR is the main client for the model.

C. If the model is developed by an entity other than a modeling company, describe the funding source for the model.

The model was funded by the state legislature at the request of the Florida Office of Insurance Regulation.

D. Describe the modeler's services.

Currently the modeler provides services to one major client, the FL-OIR. In the future the modeler may make such services available to insurance companies.

E. Indicate how long the model has been used for analyzing insurance company exposures or other such uses. Describe these uses.

The first version of the model was developed and completed in May 2005, and was based on the knowledge, and the limited data available prior to the 2004, 2005 hurricane seasons. It was not used for purposes of estimating loss costs for insurance company exposures. Essentially, it was an internal model that was never implemented.

The next version of the model was developed upon acquiring a limited amount of meteorological, engineering and insurance claim data from the 2004-05 hurricane events. It was implemented in March 2006. This version has been used to process the insurance company data on behalf of the Florida Office of Insurance Regulation.

The current version 2.6 of the model has not been used for analyzing insurance company exposures or other such uses. It was completed recently, and has been calibrated considerably for the 2004 hurricanes, and includes updated wind and vulnerability models

F. Indicate if the modeling organization has ever been involved in litigation or challenged by a statutory authority where the credibility of one of its U.S. hurricane model versions was disputed. Describe the nature of the case and the conclusion.

None.

2. Professional Credentials

A. Provide in a chart format (a) the highest degree obtained (discipline and University), (b) employment or consultant status and tenure in years, and (c) relevant experience and responsibilities of individuals involved in the primary development of or revisions to the following aspects of the model:

1. *Meteorology*
2. *Vulnerability*
3. *Actuarial Science*
4. *Statistics*
5. *Computer Science*

See below.

Table 5. Professional credentials

Key Personnel	Degree/ Discipline	University	Employment Status	Tenure	Experience
Meteorology:					
Dr. Mark Powell	Ph.D. Meteorology	Florida State University	Senior Atmospheric Scientist HRD/NOAA	29	Meteorology wind field model
Dr. Steve Cocke	Ph.D. Physics	Univ. Texas Austin	Scholar/Scientist FSU, Dept of Meteorology	12	Meteorology track, intensity, roughness models
Dr. TN Krishnamurti	Ph.D. Meteorology	Univ. of Chicago	Distinguish Professor, FSU, Dept of Meteorology	47	Meteorology
Bachir Annane	MSc Meteorology, Msc Mathematics	Florida State University	Meteorologist	14	Meteorology
Dr. George Soukup	Ph.D. Physics	University of Chicago	Atmospheric Scientist HRD/NOAA	26	Meteorology. Coding of the wind field model
Neal Durst	BSc Meteorology	Florida State University	Meteorologist	24	Meteorology
Engineering:					
Dr. Jean-Paul Pinelli	Ph.D. Civil Engineering	Georgia Tech	Assoc professor, CE Florida Institute of Technology	12	Wind engineering, vulnerability functions
Dr. Kurt Gurley	Ph.D. Civil Engineering	Univ of Notre Dame	Assoc professor, CE Univ of Florida	9	Wind engineering, simulations
Dr. C. Subramanian	Ph.D. Mech Engineering	University of New Castle	Professor, Florida Institute of Technology	24	Structural engineering analysis
Dr. Emil Simiu	Ph.D. Civil Engineering	Princeton University	Distinguish Professor, FIU and NIST Fellow	35	Engineering analysis
Actuarial/Finance:					
Dr. Shahid Hamid Project manager, PI	Ph.D. Economics (financial)	Univ of Maryland	Professor of Finance Florida International University	19	Insurance and finance
Dr. Mahadev Bhat	Ph.D Agricultural Economics	Univ of Tennessee	Assoc Professor of Environ Studies & Econ, Florida Int’l University	15	Resource and agriculture economics, demand surge
Dr. Duong Ngyue	Ph.D Finance	Florida Int’l Univ	Assistant Professor of Finance, U-Mass. Dartmouth	1	Financial and Econometric Analysis
Aguedo Ingco	FCAS, Actuary	CAS	President, AMI Risk Con.	35	Reviewer, Demand Surge
Gail Flannery	FCAS, Actuary	CAS	VP, AMI Risk Consultants	25	Reviewer, Demand Surge
Computer Science					
Dr. Shu-Ching Chen	Ph.D. Electrical and computer engineering	Purdue University	Associate Professor of Computer Science at FIU	8	Software and database development
Dr. Mei-ling Shyu	Ph.D. Electrical and computer engineering	Purdue University	Associate Professor of Electrical and Computer Engineering at Univ of Miami	8	Software Quality Assurance
Min Chen	MSc Computer Science	Florida Int’l Univ	Ph.D. Candidate FIU	3	Software and database development
Na Zhao	Msc Computer Science	Florida Int’l Univ	Ph.D. Candidate FIU	3	Software and database development
Fausto Fleites	B.S. Candidate	Florida Int’l Univ	B.S. Candidate FIU	6	Software development
Guy Ravitz	Msc Electrical and Computer Engineering	University of Miami	Ph.D. Candidate UM	1	Software Quality Assurance
Nirva Morisseau- Leroy	Msc Computer Science	Florida International University	Database Manager at HRD-NOAA	6	Programmer and Database Manager
Statistics					
Dr. Golam Kibria	Ph.D Statistics	Univ of Western Ontario	Assoc professor, Statistics, FIU	10	Statistical testing and sensitivity analysis
Dr. S. Gulati	Ph.D Statistics	Univ of South Carolina	Professor, Statistics, FIU	14	Statistical tests

B. Identify any new employees or consultants (since the previous submission) working on the model.

Not applicable, First time submission.

C. Provide visual business workflow documentation connecting all personnel related to model design, testing, execution, maintenance, and decision-making.

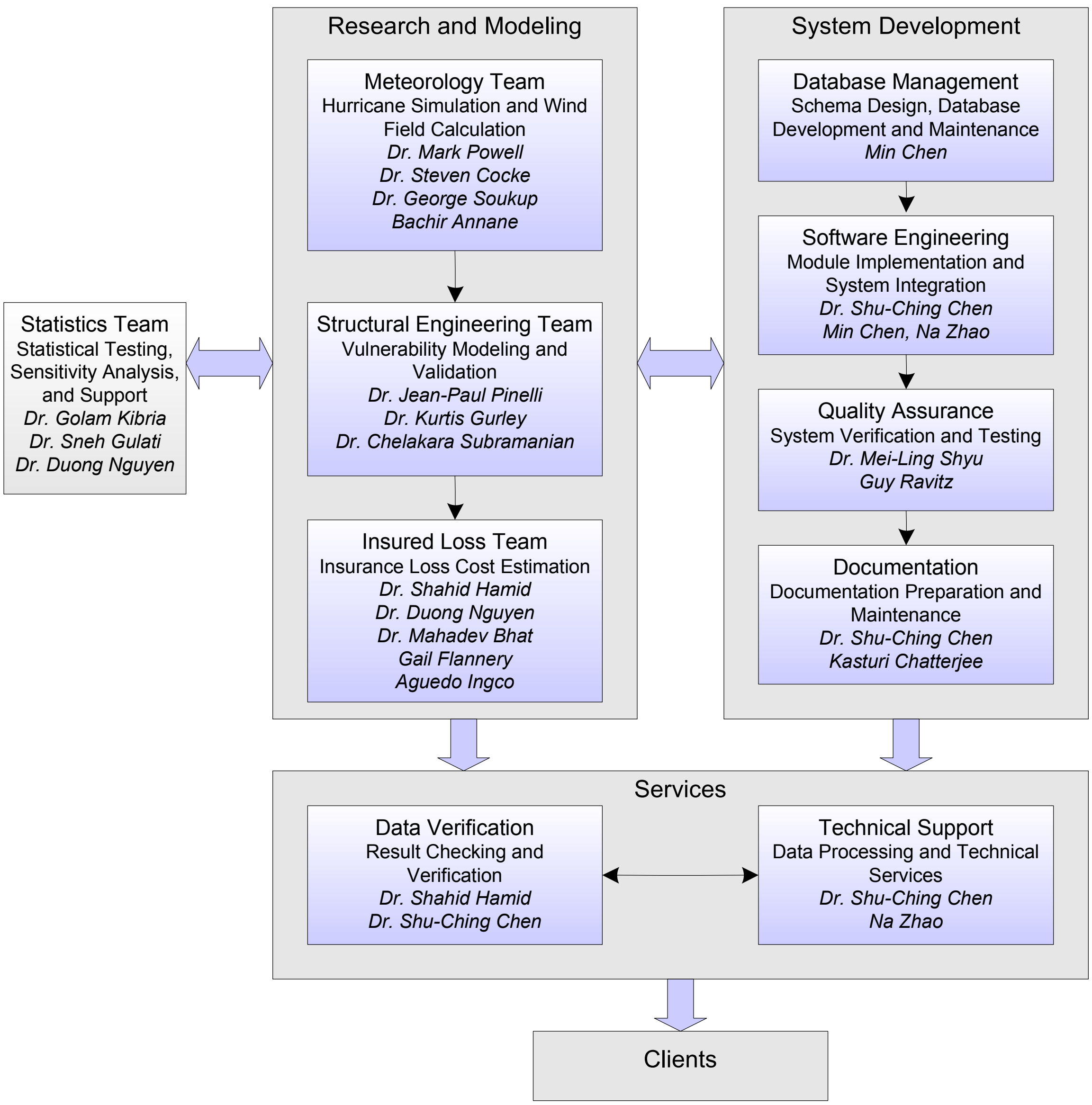

Figure 6. Florida Public Hurricane Loss Model Workflow

D. Indicate specifically whether individuals listed in A. and B. are associated with the insurance industry, consumer advocacy group, or a government entity as well as their involvement with consulting activities.

Dr. Mark Powell, Dr. George Soukup, Neal Dosrt, and Nirva Morisseau - work for the Hurricane Research Division of NOAA. Dr Simiu is a Senior Fellow at NIST.

3. Independent Peer Review

A. Provide dates of external independent peer reviews that have been performed on the following components as currently functioning in the model:

1. ***Meteorology***
2. ***Vulnerability***
3. ***Actuarial Science***
4. ***Statistics***
5. ***Computer Science***

Dr. Gary Barnes, Professor of Meteorology at University of Hawaii performed the external review of the meteorology component in December 2006. He made an on-site visit for several days. He also reviewed the submission draft in Feb. 2007.

Aguedo Ingco, FCAS and Gail Flannery, FCAS, actuaries and president and vice-president respectively of AMI Risk Consultants in Miami, performed the external review of the actuarial component and submission in February 2007. They are also involved in the development of the demand surge model.

The vulnerability, statistical and computer science components were reviewed by modeler personnel in February 2007.

B. Provide documentation of independent peer reviews directly relevant to the modeler's responses to the current Standards, Disclosures, or Forms. Identify any unresolved or outstanding issues as a result of these reviews.

The written independent review of the wind component by Dr. Gary Barnes is presented on pages 297-300. No unresolved outstanding issues remain after the review.

Aguedo Ingco FCAS and Gail Flannery FCAS, performed the independent review of the actuarial component. They attended many on site meetings with the model team. They were provided with the relevant submission documents, all relevant forms, and supporting documents. They conducted independent analysis of the A forms and asked questions and provided feedback and suggestions. Their questions were addressed, and the feedback and suggestions were acted upon so that no unresolved outstanding issues remain. A letter from Aguedo Ingco is attached at the end of this report. See form G-4.

C. Describe the nature of any on-going or functional relationship the organization has with any of the persons performing the independent peer reviews.

Dr. Gary Barnes, Professor of Meteorology at University of Hawaii, performed the external review of version 2.0 meteorology component of the model. He has no on-going or functional relationship to FIU or the modeling organization, other than as an independent reviewer. He did not take part in the development or testing of the model. His role in the model has been confined to being an independent external reviewer.

Aguedo Ingco FCAS and Gail Flannery FCAS, performed the independent review of the actuarial component. They are also involved in the development of the demand surge model.

4. Provide a completed Form G-1, General Standards Expert Certification.

See Form G-1

5. Provide a completed Form G-2, Meteorological Standards Expert Certification.

See Form G-2

6. Provide a completed Form G-3, Vulnerability Standards Expert Certification.

See Form G-3

7. Provide a completed Form G-4, Actuarial Standards Expert Certification.

See Form G-4

8. Provide a completed Form G-5, Statistical Standards Expert Certification.

See Form G-5

9. Provide a completed Form G-6, Computer Standards Expert Certification.

See Form G-6

G-3 Risk Location

A. ZIP Codes used in the model shall be updated at least every 24 months using information originating from the United States Postal Service. The United States Postal Service issue date of the updated information shall be reasonable.

Our model acquires its ZIP Code data primarily from a third-party developer, which bases its information on the ZIP-Code definitions issued by the United States Postal Service. The version we used has a USPS vintage of February 2006.

B. ZIP Code centroids, when used in the model, shall be based on population data.

ZIP Code centroids used in the model are the population centroids, and are updated at least every 24 months.

C. ZIP Code information purchased by the modeler shall be verified by the modeler for accuracy and appropriateness.

The methodology employed by the vendor of our model for computing population centroids is identical to the computational methods promulgated by the U.S. Census Bureau.

ZIP-Code information is also checked by experts in our model for consistency. Maps showing the zip code boundaries and the associated centroids will be available to the professional team for review.

Disclosures

1. List the current ZIP Code databases used by the model and the components of the model to which they relate. Provide the effective (official United States Postal Service) date corresponding to the ZIP Code databases.

FPHLM uses Dynamap 5-Digit ZIP Codes distributed by MapInfo. The source of the data is Geographic Data Technology, Inc. (GDT). GDT created the data using a combination of its DYNAMAP/2000 data, the United States Postal Service (USPS) ZIP+4 Data File, the USPS National 5-Digit ZIP Code and Post Office Directory, USPS ZIP+4 State Directories, and the USPS City State File.

The ZIP Code data is updated quarterly. The release we used in this submission has a Tele Atlas (GDT, Inc.) vintage of 2006.2 (April 2006) and a USPS vintage of February 2006. 5-Digit ZIP Codes aligns with StreetPro v9.1, MapMarker Plus v11.3, Routing J Server v2006.2, and Census Boundary Products v8.1.

The ZIP Code data is used in the Wind Field Module of the model.

2. Describe in detail how invalid ZIP Codes are handled.

A ZIP Code is defined to be “invalid” if it does not match the list of currently valid ZIP Codes. Exposure in any invalid ZIP Code is not modeled.

G-4 Independence of Model Components

The meteorological, vulnerability, and actuarial components of the model shall each be theoretically sound without compensation for potential bias from the other two components.

The meteorology, vulnerability, and actuarial components of the model are theoretically sound and were developed and validated independently before being integrated. The model components were tested individually.

Form G-1: General Standards Expert Certification

I hereby certify that I have personally reviewed the submission of Florida Public Hurricane Loss Model
(Name of Model)
Version 2.6 for compliance with the 2006 Standards adopted by the Florida Commission on Hurricane Loss Projection Methodology and hereby certify:

1) that the model meets the General Standards (G1 – G4),
2) that the Disclosures and Forms related to the General Standards section contain accurate, reliable, unbiased, and complete information,
3) that my review was completed in accordance with the professional standards and code of ethical conduct for my profession, and
4) that in expressing my opinion I have not been influenced by any other party in order to bias or prejudice my opinion.

Dr. Shahid Hamid Name	Ph.D. Economics (Financial), CFA Professional Credentials (Area of Expertise)
S. Hamid Signature (original submission)	February 27, 2007 Date
S. Hamid Signature (response to Deficiencies, if any)	3/21/2007 Date
S. Hamid V2.5 Signature	4/26/2007 Date
S. Hamid Signature (final submission)	6/12/2007 Date

An updated signature is required following modifications to the model and any revisions to the original submission.

NOTE: A facsimile or any properly reproduced signature will be acceptable to meet this requirement.

Form G-2: Meteorological Standards Expert Certification

I hereby certify that I have personally reviewed the submission of ~~State of~~ Florida ~~Public~~ Public Hurricane Loss Model
(Name of Model)

Version 2.6 for compliance with the 2006 Standards adopted by the Florida Commission on Hurricane Loss Projection Methodology and hereby certify:

1) that the model meets the Meteorological Standards (M1 – M6),
2) that the Disclosures and Forms related to the Meteorological Standards section contain accurate, reliable, unbiased, and complete information,
3) that my review was completed in accordance with the professional standards and code of ethical conduct for my profession, and
4) that in expressing my opinion I have not been influenced by any other party in order to bias or prejudice my opinion.

Gary L. Barnes
Name

Ph.D. Environmental Sci. (Meteorology Major)
Professional Credentials (Area of Expertise)

Signature (original submission) | Date

Signature (response to Deficiencies, if any) | Date: 3-21-2007

Signature V2.5 | Date: 4-26-2007

Signature (final submission) | Date: 6-12-2007

An updated signature is required following modifications to the model and any revisions to the original submission.

NOTE: A facsimile or any properly reproduced signature will be acceptable to meet this requirement.

Form G-3: Vulnerability Standards Expert Certification

I hereby certify that I have personally reviewed the submission of Florida public Hurricane Loss Model
(Name of Model)

Version 2.6 for compliance with the 2006 Standards adopted by the Florida Commission on Hurricane Loss Projection Methodology and hereby certify:

1) that the model meets the Vulnerability Standards (V1 – V2),
2) that the Disclosures and Forms related to the Vulnerability Standards section contain accurate, reliable, unbiased, and complete information,
3) that my review was completed in accordance with the professional standards and code of ethical conduct for my profession, and
4) that in expressing my opinion I have not been influenced by any other party in order to bias or prejudice my opinion.

Jean-Paul Pinelli, PhD, PE
Name

PhD in structural engineering
Florida PE lic No 53310
Professional Credentials (Area of Expertise)

Signature (original submission) — Date: 2/23/07

Signature (response to Deficiencies, if any) — Date: 3/23/07

Signature V2.5 — Date: 4/26/07

Signature (final submission) — Date: 6/11/07

An updated signature is required following modifications to the model and any revisions to the original submission.

NOTE: A facsimile or any properly reproduced signature will be acceptable to meet this requirement.

Form G-4: Actuarial Standards Expert Certification

I hereby certify that I have personally reviewed the submission of FLORIDA Public HURRICANE LOSS MODEL
(Name of Model)

Version 2.6 for compliance with the 2006 Standards adopted by the Florida Commission on Hurricane Loss Projection Methodology and hereby certify:

1) that the model meets the Actuarial Standards (A1 – A10),
2) that the Disclosures and Forms related to the Actuarial Standards section contain accurate, reliable, unbiased, and complete information,
3) that my review was completed in accordance with the professional standards and code of ethical conduct for my profession, and
4) that in expressing my opinion I have not been influenced by any other party in order to bias or prejudice my opinion.

AGUEDO M. INGCO	FCAS, MAAA, ARM, CPCU
Name	Professional Credentials (Area of Expertise)
[signature]	FEBRUARY 27, 2007
Signature (original submission)	Date
Gail Flanney, FCAS, MAAA	March 21, 2007
Signature (response to Deficiencies, if any)	Date
[signature] V2.5	April 26, 2007
Signature (final submission)	Date
[signature] V2.6	June 12, 2007
Signature (final submission)	Date

An updated signature is required following modifications to the model and any revisions to the original submission.

NOTE: A facsimile or any properly reproduced signature will be acceptable to meet this requirement.

Form G-5: Statistical Standards Expert Certification

I hereby certify that I have personally reviewed the submission of Florida Public Hurricane Loss Model (Name of Model)
Version 2.6 for compliance with the 2006 Standards adopted by the Florida Commission on Hurricane Loss Projection Methodology and hereby certify:

1) that the model meets the Statistical Standards (S1 – S6),
2) that the Disclosures and Forms related to the Statistical Standards section contain accurate, reliable, unbiased, and complete information,
3) that my review was completed in accordance with the professional standards and code of ethical conduct for my profession, and
4) that in expressing my opinion I have not been influenced by any other party in order to bias or prejudice my opinion.

B. M. Golam Kibria Name	PhD in Statistics Professional Credentials (Area of Expertise)
Kibria Signature (original submission)	2/23/07 Date
Kibria Signature (response to Deficiencies, if any)	March 21, 07 Date
Kibria V2.5 Signature	April 26, 07 Date
Kibria Signature (final submission)	June 12, 2007 Date

An updated signature is required following modifications to the model and any revisions to the original submission.

NOTE: A facsimile or any properly reproduced signature will be acceptable to meet this requirement.

Form G-6: Computer Standards Expert Certification

I hereby certify that I have personally reviewed the submission of Florida Public Hurricane Loss Model_
(Name of Model)
Version ___2.6___ for compliance with the 2006 Standards adopted by the Florida Commission on Hurricane Loss Projection Methodology and hereby certify:

1) that the model meets the Computer Standards (C1 – C7),
2) that the Disclosures and Forms related to the Computer Standards section contain accurate, reliable, unbiased, and complete information,
3) that my review was completed in accordance with the professional standards and code of ethical conduct for my profession, and
4) that in expressing my opinion I have not been influenced by any other party in order to bias or prejudice my opinion.

Shu-Ching Chen Name	PhD in Electrical and computer Engineering MS in Computer Science Professional Credentials (Area of Expertise)
Signature (original submission)	2/23/07 Date
Signature (response to Deficiencies, if any)	3/19/07 Date
Signature	4/26/07 Date
Signature (final submission)	6/11/07 Date

An updated signature is required following modifications to the model and any revisions to the original submission.

NOTE: A facsimile or any properly reproduced signature will be acceptable to meet this requirement.

METEOROLOGICAL STANDARDS

M-1 Base Hurricane Storm Set*

*(*Significant Revision)*

For validation of landfall and by-passing storm frequency in the stochastic storm set, the modeler shall use the latest updated Official Hurricane Set or the National Hurricane Center HURDAT as of June 1, 2006 or later. Complete additional season increments based on updates to HURDAT approved by the Tropical Prediction Center/National Hurricane Center are acceptable modifications to these storm sets. Peer reviewed atmospheric science literature can be used to justify modifications to the Base Hurricane Storm Set.

M-1.1 Identify the Base Hurricane Storm Set, the release date, and the time period included for landfall and by-passing storm frequencies.

The National Hurricane Center HURDAT file from June 2006 for the period 1900-2005 is used to establish the official hurricane base set used by our model. All HURDAT storm tracks that have made landfall in Florida or bypassed Florida but passed close enough to produce damaging winds, are documented in our archives.

M-1.2 If the modeler has modified the Base Hurricane Storm Set, provide justification for such modifications.

NWS-38 was used to make modifications to the base set where there were gaps in the HURDAT information. Complete documentation on our base set is found on the NOAA AOML-HRD website at:
http://www.aoml.noaa.gov/hrd/lossmodel/

Region A differences:

* Storm 3 1903 - Second landfall in Region A, wind speed adjusted to agree with Ho et al. and HURDAT.
* Storm 1 1911 - Becomes Storm 2 1911, as an additional storm was added to the latest version of HURDAT. Wind at landfall adjusted to agree with HURDAT and pressure wind relationship.
* Storm 4 1912 - Not counted as a landfall in Region A. Kept as a landfall in Region F.
* Storm 3 1917 - Pressure and wind at landfall adjusted to agree with HURDAT.
* Storm 6 1926 - Put in By-pass column NOT a landfall in Region A. Kept as a landfall in Region F.
* Storm 2 1929 - Landfall pressure adjusted to agree with HURDAT.
* Storm 2 1939 - Pressure at exit adjusted to agree with pressure wind relationship.
* Storm 5 1941 - Winds at landfall adjusted to agree with HURDAT.
* Gladys 1968 - Winds at landfall adjusted to agree with HURDAT.

* Agnes 1972 - Pressure and winds at landfall adjusted to agree with HURDAT.
* Eloise 1975 - Winds at landfall adjusted to agree with HURDAT.
* Kate 1985 - Pressure and winds at landfall adjusted to agree with HURDAT. This upped the S-S Category to 2.
* Jeanne 2004 - Base Set shows an exit in Region A at hurricane strength, but HURDAT does not have the eye cross the coast in this Region. In addition, by the time the center was near this coast, Jeanne had slipped below hurricane strength. So we show no Exit in Region A for Jeanne.
* Dennis 2005 - Winds at landfall adjusted to agree with HURDAT.

Region B differences:

* Storm 2 1906 - Base Set shows entry in Region C and no exit. HURDAT shows entry in Region B and exit in Region C. Landfall values are applied to Region B entry, and corrected exit values applied to Region C.
* Storm 8 1906 - Pressure at landfall adjusted to agree with HURDAT.
* Storm 8 1909 - This is now Storm 10 1909 in new version of HURDAT. Instead of a bypass in Region C, landfalls in Region B and C were added for a strike in the Florida Keys. Pressure and winds adjusted to agree with Ho et al.
* Storm 5 1910 - Base set uses pressure and winds from a ship report as reported in Ho, et al. However, landfall values were for a weaker storm. Pressure, wind, and category at land fall adjusted.
* Storm 2 1929 - Seafall in Region B added.
* Storm 6 1935 - Pressure at exit adjusted upward to agree with inland decay model. Base set keeps pressure the same as at landfall.
* Storm 5 1941 - Pressure at exit adjusted to agree with inland decay model.
* Storm 4 1947 - Pressure at seafall adjusted for over land decay.
* Storm 7 1948 - Pressure at landfall adjusted to pressure-wind relationship.
* Storm 8 1948 - Base Set designates only landfall in Region C. HURDAT track shows initial landfall in Region B as a Category 3 hurricane.
* Donna 1960 - Winds at landfall adjusted to agree with HURDAT.
* Inez 1966 - Pressure and winds at landfall adjusted to agree with HURDAT.
* Andrew 1992 - Pressure and winds at seafall adjusted to agree with HURDAT.
* Irene 1999 - Winds at landfall adjusted to agree with HURDAT.
* Charley 2004 - Pressure and winds at landfall adjusted to agree with HURDAT.
* Frances 2004 - HURDAT shows Frances below hurricane strength when it exits Region B. Therefore there is no exit shown.
* Jeanne 2004 - Base Set shows an exit in Region B at hurricane strength, but HURDAT does not have the eye cross the coast in this Region. In addition, by the time the center was near this coast, Jeanne had slipped below hurricane strength. So we show no exit in Region B for Jeanne.
* Katrina 2005 - Exit in Region B added, as HURDAT maintains it at hurricane strength during seafall.
* Wilma 2005 -Winds at landfall adjusted to agree with HURDAT.

Region C differences:

* Storm 3 1903 - Winds and category at landfall adjusted to agree with HURDAT.
* Storm 2 1906 - Base Set shows entry in Region C and no exit. HURDAT shows entry in Region B and exit in Region C. Landfall values are applied to Region B entry, and corrected exit values applied to Region C.
* Storm 1 1926 - Landfall moved from Region D to Region C to comply with Fla. Commission's regional definition. Also winds at landfall reduced to Category 1 to agree with HURDAT.
* Storm 6 1926 - Pressure and wind adjusted to agree with HURDAT.
* Storm 2 1939 - Pressure at landfall adjusted to agree with HURDAT.
* Storm 8 1947 - Pressure and winds at landfall adjusted to pressure-wind relationship.
* Storm 8 1948 - Base Set shows Category 1 winds of 86 mph at landfall. HURDAT shows winds of 110 to 127 mph around landfall, at minimum a Category 2 at landfall. Also, initial landfall was in the Florida Keys at a Category 3.
* King 1950 - Because of possible error in sequence of days in HURDAT landfall pressure is very high. Nevertheless our pressure is set to agree with HURDAT.
* Cleo 1964 - Pressure and winds at landfall adjusted to agree with HURDAT.
* Betsy 1965 - Winds adjusted to agree with HURDAT.
* David 1979 - Pressure and winds at landfall adjusted to agree with HURDAT.
* Charley 2004 - Exit in Region C not used.
* Katrina 2005 - Pressure and winds at landfall adjusted to agree with HURDAT.
* Wilma 2005 - Pressure and winds at landfall adjusted to agree with HURDAT.

Region D differences:

* Storm 1 1926 - Moved from Region D to Region C to comply with FL Commission's regional definition.
* Dora 1964 - Winds at landfall adjusted to agree with HURDAT.
* Gladys 1968 - Pressure and winds at exit adjusted to agree with HURDAT.
* Charley 2004 - Pressure adjusted to agree with H*Wind.

Region E differences:

* Storm 3 1940 - Category adjusted to agree with winds.
* Storm 8 1947 - Category adjusted to agree with winds.

Region F differences:

Storm 6 1926- Changed landfall from region A to region F.

By-pass differences:

* Storm 8 1909 - This is now Storm 10 1909 in new version of HURDAT. Instead of a bypass in Region C, landfalls in Region B and C were added for a strike in the Florida Keys. Pressure and winds adjusted to agree with Ho et al.
* Storm 3 1912 - This is now Storm 4 1912 in new version of HURDAT. Added as a bypassing storm for region A.
* Baker 1950 - By-passing of Region A added.
* Frederic 1979- By-passing of region A.
* Danny 1997 - By-pass in Region A added.
* Ivan 2004 - Pressure and Winds at by-pass and landfall adjusted to agree with H*Wind analysis.
* Rita 2005 - Pressure and Winds at by-pass adjusted to agree with HURDAT.

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HURDAT is the primary source of data for the base set used by the Public model. We have also used data from NWS-38, which is discussed in the metadata on our web site at: http://www.aoml.noaa.gov/hrd/lossmodel/

A comprehensive list of peer-reviewed literature relevant to hurricanes in the base set (but not the basis for modifications of the Base Set) is detailed below:

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M-2 Hurricane Characteristics

Methods for depicting all modeled hurricane characteristics, including but not limited to wind speed, radial distributions of wind and pressure, minimum central pressure, radius of maximum winds, strike probabilities, tracks, the spatial and time variant wind fields, and conversion factors, shall be based on information documented by currently accepted scientific literature.

All methods used to depict storm characteristics are based on methods described in the peer-reviewed scientific literature. Data sets were developed by our scientists using data from published reports, the HURDAT database, archives, observations, and analyses at NOAA's Hurricane Research Division, The Florida State University, Florida International University, and the Florida Coastal Monitoring Program.

M-2.1 Identify the hurricane characteristics (e.g., central pressure or radius of maximum winds) that are used in the model. Describe the historical data used for each of these characteristics identifying all storms used.

Characteristics modeled include the annual occurrence rate, seasonal genesis time, the storm track (translation speed and direction of the storm), radius of maximum wind (Rmax), Holland surface pressure profile parameter (B), the minimum central sea-level pressure (Pmin), the damage threshold distance, and the pressure decay as a function of time after landfall.

The annual occurrence rate, seasonal genesis time, and storm motion are modeled using the HURDAT database (June 2006). For pressure decay we use the Vickery (2005) decay model. Vickery developed the model based on pressure observations in HURDAT and NWS -38, together with Rmax and storm motion data as described in the publication. The radius of maximum winds at landfall is modeled by fitting a gamma distribution to a comprehensive set of historical data published in NWS-38 by Ho et al, (1987) but supplemented by the extended best track data of DeMaria, NOAA HRD research flight data, and NOAA-AOML-HRD H*Wind analyses (Powell et al., 1996, 1998).

Additional research was used to construct an historical landfall Rmax-Pmin database using existing literature (Ho et al 1987), extended best track data collected by Dr. Mark DeMaria, HRD Hurricane field program data, and the H*Wind wind analysis archive. We develop a new *Rmax* model using the revised landfall *Rmax* database which includes 108 measurements for storms up to 2005. We have opted to model the *Rmax* at landfall rather than the entire basin for a variety of reasons. One is that the distribution of landfall *Rmax* may be different than that over open water. An analysis of the landfall *Rmax* database and the 1988-2007 DeMaria Extended Best Track data shows that there appears to be a difference in the dependence of *Rmax* on central pressure (*Pmin*) between the two data sets. The landfall data set provides a larger set of independent measurements, more than 100 storms compared to about 31 storms affecting the Florida threat area region in the Best Track Data. Since landfall *Rmax* is most relevant for loss cost estimation, and has a larger independent sample size, we have chosen to model the landfall data set. Future studies will examine how the Extended Best Track Data can be used to supplement the landfall data set.

Based on the semi-boundedness and skewness of *Rmax*, we sought to model the distribution using either a log normal or gamma distribution. Using maximum likelihood estimators, we found the parameters for a log normal distribution to be μ=3.15, σ^2=0.2327, and for the gamma distribution, k=5.53547, θ=4.67749. With these parameters, we show a plot of the observed and expected distribution for log normal and gamma in Figure 7. The *Rmax* values are binned in 5 sm intervals, with the *x*-axis showing the end value of the interval.
The gamma distribution proved to be a better fit. A Chi square goodness of fit test shows that using a log normal distribution yields a *p*-value of 0.41, while for a gamma distribution it is 0.71. The log normal also has a longer tail, which inflates the variance somewhat and leads to a greater probability of excessively large storms. On this basis, we have opted to use the gamma distribution function for the stochastic model.

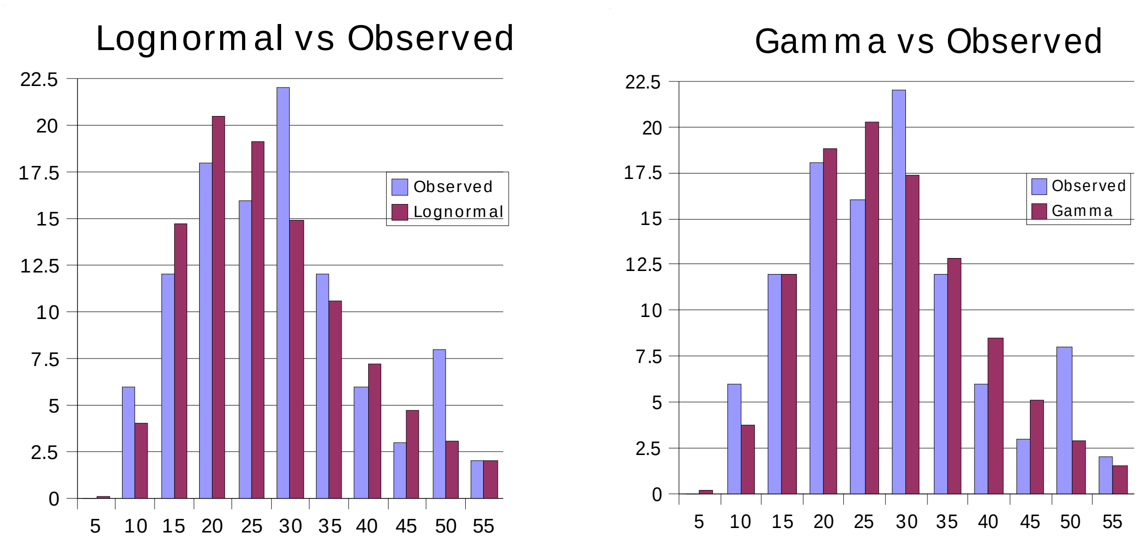


Figure 7. Comparison of observed landfall Rmax (sm) distribution to Lognormal (left) and Gamma distribution fits of the data.

An examination of the *Rmax* database shows that intense storms, essentially category 5 storms, have rather small radii. Thermodynamic considerations (Willoughby, 1998) also suggest that smaller radii are more likely for these storms. Thus, we model category 5 (*Delp*>90 mb, where *Delp*=1013-*Pmin* and *Pmin* is the central pressure of the storm) storms using a gamma distribution, but with a smaller value of the θ parameter, which yields a smaller mean *Rmax* as well as smaller variance. We have found that for Category 1-4 (*Delp*<80) storms there is essentially no discernable dependence of *Rmax* on central pressure. This is further verified by looking at the mean and variance of *Rmax* in each 10 mb interval. Thus we model category 1-4 storms with a single set of parameters. For a gamma distribution, the mean is given by $k\theta$, and variance is $k\theta^2$. For category 5 storms, we adjust θ such that the mean is equal to the mean of the three category 5 storms in the database: 1935 No Name, 1969 Camille and 1992 Andrew. An

intermediate zone between *Delp*=80 mb and *Delp*=90 mb is established where the mean of the distribution is linearly interpolated between the Category 1-4 value and the Category 5 value. As the θ value is reduced, the variance is likewise reduced. Since there are insufficient observations to determine what the variance should be for Category 5 storms, we rely on the assumption that variance is appropriately described by the re-scaled θ, via $k\theta^2$.
A simple method is used to generate the gamma-distributed values. A uniformly distributed variable, a product of the random number generator that is intrinsic to the Fortran compiler, is mapped onto the range of *Rmax* values via the inverse cumulative gamma distribution function. For computational efficiency, a lookup table is used for the inverse cumulative gamma distribution function, with interpolation between table values. Figure 8 shows a test using 100,000 samples of *Rmax* for Category 1-4 storms, binned in 1 sm intervals, and compared with the expected values.

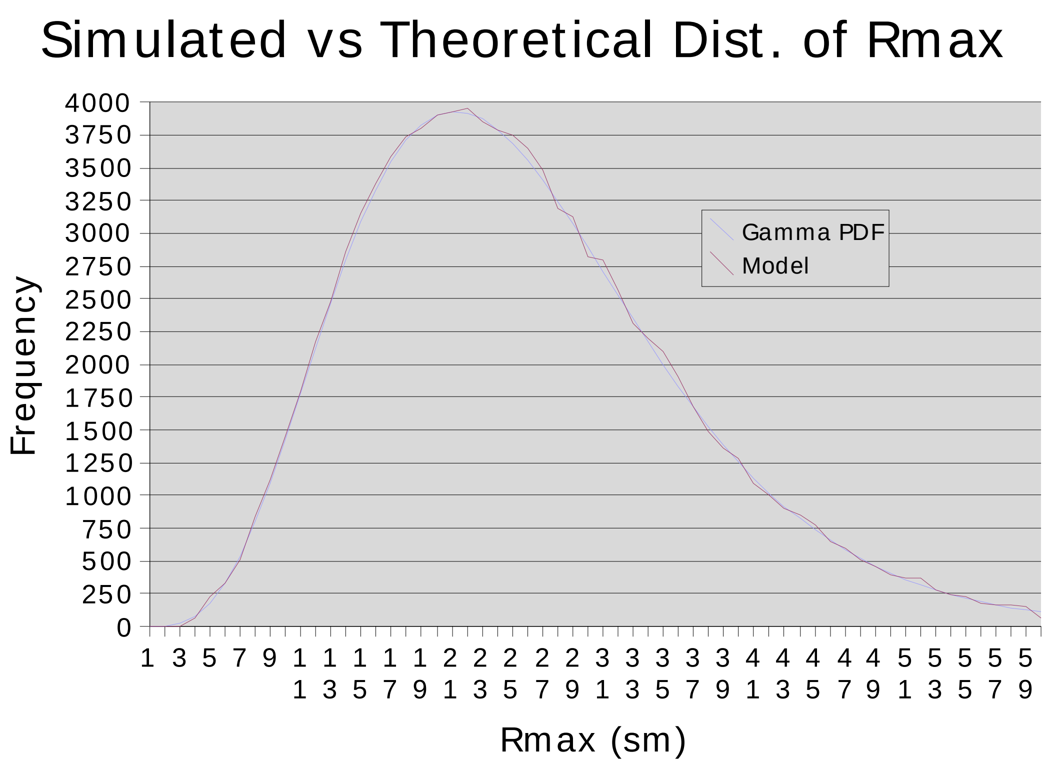


Figure 8. Comparison of 100,000 Rmax values sampled from the Gamma distribution for Cat 1-4 storms to the expected values.

For category 5 and intermediate category 4-5 storms, we utilize the property that the gamma cumulative distribution function is a function of (k,x/θ). Thus, by re-scaling θ, we can use the same function (lookup table), but just rescale x (*Rmax*). The rescaled *Rmax* will then still have a gamma distribution, but with different mean and variance.

The storms in the stochastic model will undergo central pressure changes during the storm life-cycle. When a storm is generated, an appropriate *Rmax* is sampled for the storm. In order to assure the appropriate mean values of *Rmax* as pressure changes, the *Rmax* is rescaled every time step as necessary. As long as the storm has *Delp* < 80 mb, there is in effect no rescaling. In the stochastic storm generator, we limit the range of *Rmax* from 4 sm to 60 sm.

Recent research results by Willoughby and Rahn (2004) based on the NOAA-AOML-HRD annual hurricane field program and Air Force reconnaissance flight-level observations are used to create the Holland B model. Ongoing research on the relationship between horizontal surface wind distributions (based on Stepped Frequency Microwave Radiometer observations) to flight level distributions is used to correct the flight level Rmax to a surface Rmax, when developing a relationship for the Holland B term. We multiply the flight level Rmax (from the Willoughby and Rahn (2004) data set) by 0.815 to estimate the surface Rmax (based on SFMR, flight level maxima pair data). This adjustment keeps the Holland pressure profile parameter consistent with a surface Rmax, and (due to the negative term in the equation) produces a larger value of B than if a flight-level value of Rmax were used. This is consistent with the concept of a stronger radial pressure gradient for the mean boundary layer slab than at flight level (due to the warm core of the storm), which agrees with GPS dropsonde wind profile observations showing boundary layer winds that are stronger than those at the 10,000 ft. flight level (which is the level for the most of the B data in Willoughby and Rahn 2004). The B adjustment for a surface Rmax produces an overall stronger surface wind field than if B were not adjusted. In addition, surface pressures from the "Best track" information on HURDAT are used to associate a particular flight-level pressure profile B with a surface pressure.

The NOAA-AOML- HRD H*Wind analysis archive was used to develop a relationship between Rmax and the extent of damaging winds to make sure that the model would only consider zip codes with potential for damaging winds. HRD wind modeling research initiated by Ooyama (1969), and extended by Shapiro (1983) has been used to develop the HRD wind field model. This model is based on the concept of a slab boundary layer model, a concept pioneered at NOAA-AOML- HRD and now in use by other modelers for risk applications (e.g. Thompson and Cardone 1996, Vickery and Twisdale 1995, 2000). The HURDAT historical database is used to develop the track and intensity model. Historical data used for computing the potential intensity is based on NCEP sea surface temperature archives and the NCEP reanalysis for determining the upper tropospheric outflow temperatures. Furthermore the ability of the model to simulate possible future climate scenarios of El Nino, La Nina, and warm or cold interdecadal periods is based on research on climate cycles including (Bove et al, 1998, Landsea et al., 1999, Goldenberg et al., 2001). Climate scenarios are disabled in Version 2.6 of the Florida Public Hurricane Loss Model. Use cases describing the various model functions and their research basis are available with the model documentation.

M-2.2 Describe the dependencies among variables in the wind field component and how they are represented in the model.

B depends linearly on Pmin, latitude, and Rmax. The gradient wind for the slab boundary layer depends on Pmin (through DelP) and B, the mean slab planetary boundary layer (PBL) wind depends on the gradient wind, the drag coefficient (which depends on wind speed), the air density, the gradients of the tangential and radial components of the wind, and the Coriolis parameter (which also depends on latitude). The wind field model solves the equations of motion on a polar grid with a 0.1 R/Rmax radial grid resolution. The input Rmax is reduced by 10% to correct a small bias in Rmax caused by a tendency of the wind field solution to place Rmax radially outward by one grid point. The wind field model terms and dependencies are further described in Powell et al., 2005.

M-2.3 Describe the process for converting gradient winds to surface winds including the treatment of the inherent uncertainties in the conversion factor with respect to location of the site compared to the radius of maximum winds over time. Justify the variation of the gradient to surface winds conversion factor relative to hurricane intensity.

Gradient winds are not converted to surface winds in this model. Gradient winds are used to help estimate the initial slab planetary boundary layer (PBL) winds in a given storm. The PBL winds depart from gradient balance due to the effects of friction and the radial advection of tangential momentum. The PBL winds are adjusted to the surface using recent results from Powell et al., 2003 which estimated a mean reduction factor of 77.5%, based on over 300 GPS sonde wind profile observations in hurricanes. The reduction factor is based on the ratio of the surface wind speed at 10 m to the mean wind speed for the 0-500 m layer (Mean Boundary Layer wind speed or MBL) published in Powell et al., 2003. This ratio is much more relevant to a slab boundary layer model than using data based on higher, reconnaissance aircraft flight levels. The depth of the slab boundary layer model is assigned a value of 450 m, which is the level of the maximum mean wind speed from GPS sonde wind profiles published in Powell et al., 2003. The uncertainty of the reduction factor is ~8% based on the standard deviation of the measurements, but no attempt is made to model this uncertainty. No spatial or intensity dependent variation of reduction factor is used at this time.

M-2.4 Describe how the wind speeds generated in the wind field model were converted from sustained to gust and identify the average time.

Wind speeds from the HRD slab boundary layer wind field model are assumed to represent 10 min averages. A sustained wind is computed by applying a gust factor to account for the highest 1 min wind speed over the 10 min period. A peak 3s gust is also computed. Gust factors depend on wind speed and the upstream fetch roughness which in turn depends on wind direction at a particular location. Gust factor calculations were developed using research in the Engineering Sciences Data Unit (ESDU) series papers as summarized and applied to tropical cyclones by Vickery and Skerlj (2005).

M-2.5 Describe how the asymmetric nature of hurricanes is considered in the model.

The asymmetry of the wind field is determined by the storm translation motion (right-left asymmetry), and the associated asymmetric surface friction. A set of form factors for the wind field also contribute to the asymmetry. The proximity of the storm to land also introduces an additional asymmetry due to the affect of land roughness elements on the flow. Azimuthal variation is introduced thru the use of two form factors (see Appendix of Powell et al., 2005 for more detail). The form factors multiply the radial and tangential profiles and provide a "factorized" ansatz for both the radial and tangential storm–relative wind components. Each form factor contains three constant coefficients which are variationally determined in such a way that the ansatz constructed satisfies (as far as its numerical degrees of freedom permit) the scaled momentum equations for the storm-relative polar wind components.

M-2.6 Describe the stochastic hurricane tracks and discuss their appropriateness. Describe the historical data used as the basis for the model's hurricane tracks.

The hurricane tracks are modeled as a Markov process. Initial storm conditions are derived from HURDAT. Small uniform random perturbations are added to the historical initial conditions, including initial storm location, change in motion, and intensity.

Storm motion is determined by sampling empirical distributions, based on HURDAT, of change in speed and change in direction, as well as change in relative intensity. These functions are also spatially dependent, binned in variable box sizes (typically 2.5 degree), and are enlarged as necessary to ensure sufficient density of storms for the distribution.

The model has been validated by examining key hurricane statistics at roughly 30 sm milepost locations along the Gulf and Atlantic coasts. The parameters examined include average central pressure deficit, average heading angle and speed, and total occurrence by Saffir-Simpson category.

Figure 9 shows a sample of the generated stochastic tracks.

M-2.7 Describe how the coastline is segmented (or partitioned) in determining the parameters for hurricane frequency used in the model. Provide the hurricane frequency distribution by intensity for each segment.

The model does not use coastline segmentation to determine hurricane frequency.

M-2.8 For hurricane characteristics modeled as random variables, describe the probability distributions.

Initial storm positions and motion changes derived from HURDAT are modified by the addition of small uniform random error terms. Subsequent storm motion change and intensity are obtained by sampling from empirically derived PDFs as described in Section G-1.2. The random error term for the B parameter is a normal distribution with zero mean and a standard deviation derived from observed reconnaissance aircraft pressure profile fits for B (Willoughby and Rahn 2004). The radius of maximum winds is sampled from a gamma distribution based on landfall Rmax data.

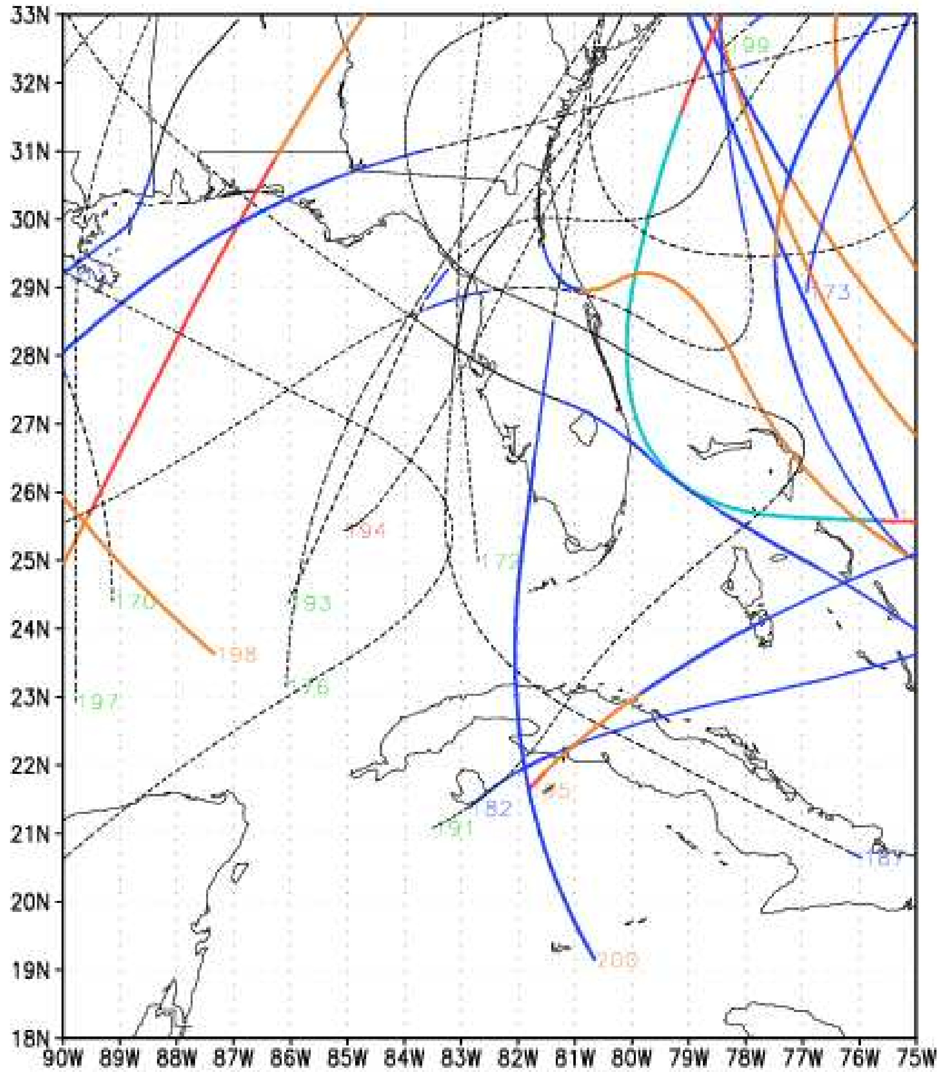


Figure 9. Representative stochastic hurricane tracks simulated by the FPHLM.

M-2.9 Identify any changes in the functional representation of hurricane characteristics during an individual storm event life cycle.

Upon landfall, the evolution of the central pressure changes from sampling a PDF, to a decay model described in Vickery (2005). When the storm exits back over water, the pressure is again modeled via the PDF. After landfall, the slab boundary layer surface drag coefficient changes from a functional marine form to a constant based on a mean aerodynamic roughness length of 0.2 m. The slab boundary layer height increases from 450 m to 1 km after the center makes landfall, and decreases back to 450 m if the center exits land to go back to sea.

M-2.10 Describe how the model's wind field is consistent with the inherent differences in wind fields for such diverse storms as Hurricane Charley, Hurricane Katrina, and Hurricane Wilma, for example.

The model can represent a wide variety of storms through variation of parameters for radius of maximum winds, central pressure deficit and Holland Beta (B). Snapshots of model wind fields at landfall are compared to NOAA-AOML-HRD H*Wind analyses below (for further details see disclosure 3 for Standard S1).

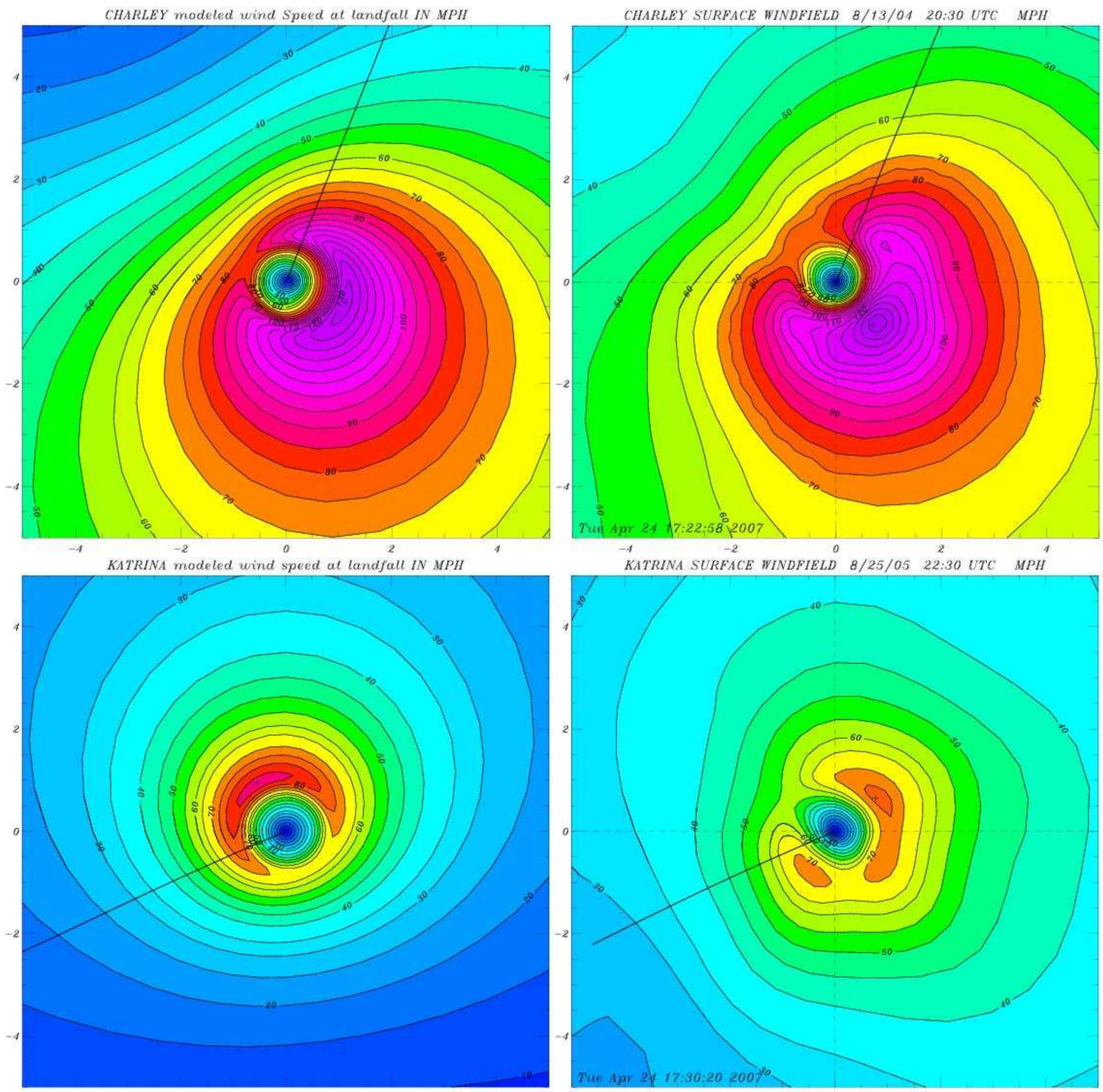


Figure 10. Comparison of observed (right) and modeled (left) landfall wind fields of Hurricanes Charley (2004, top), and 2005 Hurricane Katrina in south Florida (bottom). Line segment indicates storm heading. Horizontal coordinates are in units of R/Rmax and winds units of miles per hour.

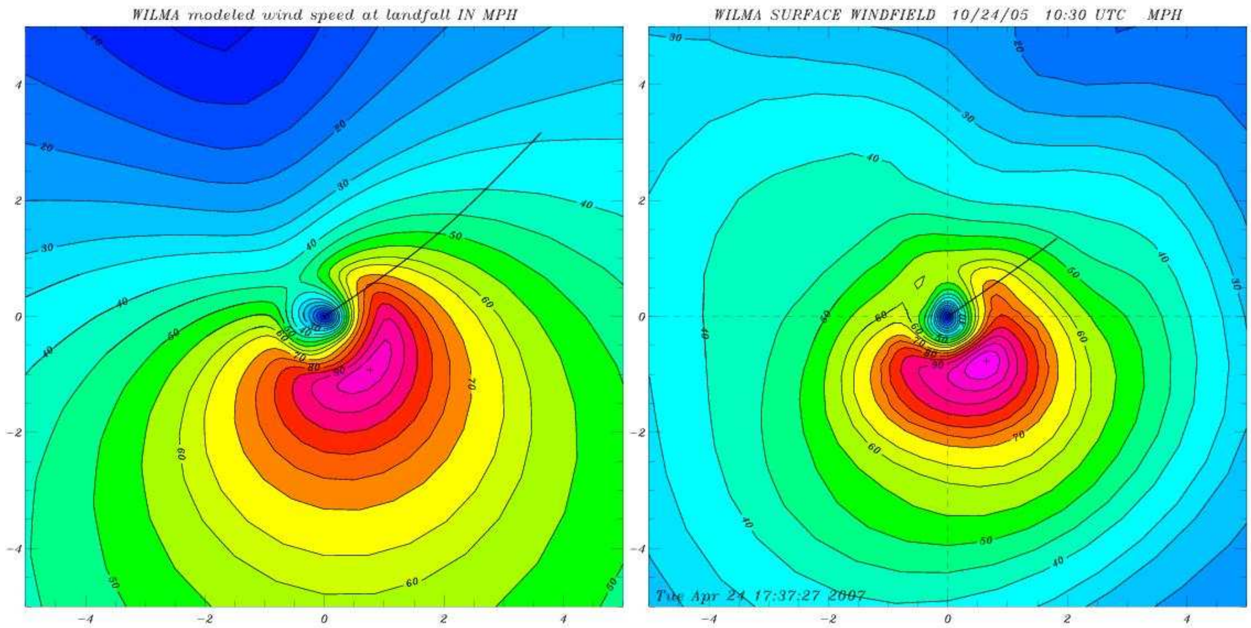


Figure 11. As in Figure 10 except for Hurricane Wilma of 2005.

M-3 Landfall Intensity

Models shall use maximum one-minute sustained 10-meter wind speed when defining hurricane landfall intensity. This applies both to the Base Hurricane Storm Set used to develop landfall strike probabilities as a function of coastal location and to the modeled winds in each hurricane which causes damage. The associated maximum one-minute sustained 10-meter wind speed shall be within the range of wind speeds (in statute miles per hour) categorized by the Saffir-Simpson scale.

Table 6. Saffir-Simpson Hurricane Scale

Category	Winds (mph)	Damage
1	74 - 95	Minimal
2	96 - 110	Moderate
3	111 - 130	Extensive
4	131 - 155	Extreme
5	Over 155	Catastrophic

The HRD wind field model simulates landfall intensity according to the maximum 1 min sustained wind for the 10 m level for both stochastic simulations and the Official Hurricane Set. The Saffir-Simpson damage potential scale is used to further categorize the intensity at landfall and the range of simulated wind speeds (in miles per hour) is within the range defined in the scale.

M-3.1 Define an "event" in the model. Discuss how storms that intensify or decay at or below the Category 1 level are accounted for in the model.

An event is any hurricane that makes landfall in the state of Florida or bypasses Florida but approaches close enough to pass within a specified damage threshold distance of a Florida zip code. The damage threshold distance depends on Rmax and ranges from 11 Rmax (e.g. 35 sm) for small (~4 sm Rmax) storms to 4 max (e.g. 125 sm for Rmax = 31 sm) for larger Rmax storms. The damage threshold distance does not vary by zip code; each zip code distance from the storm is compared to the threshold. If any zip code distance from the storm center is within this distance from the storm, the wind model is "turned on" and the wind speeds at all zip codes are evaluated to determine the maximum wind over the entire storm lifecycle. Once a hurricane makes landfall, it decays exponentially with time during the period the storm center remains over land. A hurricane that has made landfall is permitted to decay to less than hurricane (Cat 1) intensity provided it remains within a threshold distance of Florida zip codes. A storm dissipates over land if Pmin reaches 1011 mb. Once a landfalling hurricane decays to tropical storm strength and exits out to sea, it may reintensify to hurricane status and make subsequent landfalls. Stochastic or historical events may be simulated.

M-3.2 Describe how the model handles events with multiple landfalls and by-passing storms. Be specific with respect to how by-passing storms are handled in the model when the wind speeds are less than hurricane force winds.

If multiple landfalls of a given hurricane occur, winds are computed for all zip codes within a threshold distance of the center of the storm during its entire life cycle. A by-passing hurricane is considered in the model if it approaches close enough to pass within the damage threshold distance of a Florida zip code, provided zip code mean open terrain wind speeds exceed 30 mph. Storms that by-pass or landfall with less than hurricane (Cat 1) intensity are not considered.

M-3.3 Provide all model derived characteristics of the Florida hurricane in the stochastic storm set with the greatest over water intensity at the time of landfall.

Model run date:10 June 2007

Number of years: 50,000

Storm Date/Year: Storm#34827, Year 17656 September 8th

Location: 25.56 N, 82.25 W (Sanibel Island)

Maximum sustained surface (marine exposure) wind speed (mph): 195.9 mph

Minimum Pressure (mb): 906 mb

Rmax (sm): 8.3 sm

Holland B pressure profile parameter: 1.88

M-4 Hurricane Probabilities

A. Modeled probability distributions for hurricane intensity, forward speed, radii for maximum winds, and storm heading shall be consistent with historical hurricanes in the Atlantic basin.

Hurricane motion (track) is modeled based on historical geographic and seasonal probability distributions of hurricane genesis locations (locations where hurricanes developed or moved into the threat area), translation velocity and velocity change, initial intensity, intensity change, and potential intensity. Monthly geographic distributions of climatological sea surface temperatures (Reynolds 1 degree resolution**,** Reynolds et al., 2002) and upper tropospheric outflow temperatures (NCEP REANALYSIS II 100 mb, Kanamitsu et al., 2002) are used to determine physically realistic potential intensities which help to bound the modeled intensity. The radius of maximum wind at landfall is modeled from a comprehensive set of historical data published in NWS-38 by Ho et al, (1987) but supplemented by the extended best track data of DeMaria, (Penington 2000), NOAA HRD research flight data, and NOAA-HRD H*Wind analyses (Powell et al., 1996, 1998). The development of the Rmax frequency distribution fit and it's comparison to historical hurricane data is discussed in M-2.1. Comparisons of the modeled radius of maximum wind to the observed data are shown in Form M3. H*Wind wind field analyses of historical hurricanes are available from the NOAA-AOML-HRD web site: http://www.aoml.noaa.gov/hrd/data_sub/wind.html
Modeled probability distributions for hurricane intensity, forward speed, Rmax, and storm heading are consistent with historical hurricanes in the Atlantic basin.

B. Modeled hurricane probabilities shall reflect the Base Hurricane Storm Set used for category 1 to 5 hurricanes and shall be consistent with those observed for each coastal segment of Florida and neighboring states (Alabama, Georgia, and Mississippi).

As shown in Form M1 and the accompanying plots, our model reflects reasonably the Hurricane Set for 1900-2005 for hurricanes of Saffir-Simpson Categories 1-5 in each coastal region of Florida as well as the neighboring states. In addition, a finer scale coastal mile post study of model parameters (occurrence rate, storm translation speed, storm heading, and Pmin) was conducted during the development of the model.

M-4.1 List assumptions used in creating the hurricane characteristic databases.

The Holland B database is based on flight-level pressure profiles corresponding to constant pressure surfaces at 700 mb and below. Due to a lack of surface pressure field data, an assumption is made that the Holland B at the surface is equivalent to a B determined from information collected at flight level. The surface pressure profile uses Pmin, DelP, and Rmax at the surface. It would be ideal to have a B data set also corresponding to the surface but such data are not available. The best available data on B are flight-level data from Willoughby and Rahn 2004. Willoughby and Rahn 2004 discuss: "In major hurricanes... they almost invariably flew at

3km (700 mb) .” Few lower level data are available for mature hurricanes so their plot (Fig. 14) of B vs. flight-level “provide no information about average vertical structure”. In lieu of lower level data, we model B using flight data supplied by Dr. Willoughby, but with Rmax adjusted to a surface Rmax, and with surface DelP added from NHC best track for each flight. Since we are modeling hurricane winds during landfall, our Rmax model applies only to landfall and is not designed to model the lifecycle of Rmax as a function of intensity.

M-4.2 If the model incorporates short term and long term variations in annual storm frequencies, describe how this is incorporated.

Storm frequencies are based on historical occurrences derived from HURDAT, and thus implicitly contain any long or short term variation that are contained in the historical record. No attempt is made to explicitly model long or short term variations.

M-4.3 Provide a completed Form M-1, Annual Occurrence Rates.

Form M1 is attached.

Form M-1: Annual Occurrence Rates

A. Provide annual occurrence rates for landfall from the data set defined by marine exposure that the model generates by hurricane category (defined by wind speed in the Saffir-Simpson scale) for the entire state of Florida and selected regions as defined in Figure 6. List the annual occurrence rate (probability of an event in a given year) per hurricane category. Annual occurrence rates should be rounded to two decimal places.

B. The historical frequencies below have been derived from the Commission's Official Hurricane Set. If the National Hurricane Center's HURDAT or other hurricanes in addition to the Official Hurricane Set as specified in Standard M-1 are used, then the historical frequencies should be modified accordingly.

Historical frequencies are based on the June 2006 version of HURDAT for the period 1900-2005. We count the first hurricane landfall in Florida and ignore subsequent landfalls of a given hurricane. For regions E and F, we count the first hurricane landfall in each region for storms that did not previously make landfall in Florida. For By-passing storms, we count any hurricane that does not make landfall in Florida, but passes close enough to the state to pass within a damage threshold of a Florida zip code. Of special note is that Region C has an abnormally large number of SS Cat 3 hurricanes and Region D has a large deficit of hurricanes.

Form M-1. Modeled Annual Occurrence Rates

	Entire State		Region A – NW Florida		Region B – SW Florida	
Category	Historical	Modeled	Historical	Modeled	Historical	Modeled
1	0.25	.17	0.10	.08	0.08	.03
2	0.11	.12	0.04	.05	0.03	.03
3	0.17	.13	0.03	.04	0.06	.04
4	0.04	.06	0.00	.02	0.02	.02
5	0.02	.01	0.00	.00	0.01	.00

	Region C – SE Florida		Region D – NE Florida		Florida By-Passing Hurricanes	
Category	Historical	Modeled	Historical	Modeled	Historical	Modeled
1	0.07	.05	0.00	.01	0.04	.04
2	0.04	.03	0.01	.01	0.03	.02
3	0.08	.04	0.00	.01	0.03	.03
4	0.02	.03	0.00	.00	0.01	.01
5	0.01	.01	0.00	.00	0.00	.00

	Region E – Georgia		Region F – Alabama/Mississippi	
Category	Historical	Modeled	Historical	Modeled
1	0.01	.01	0.06	.03
2	0.01	.00	0.02	.02
3	0.00	.00	0.06	.02
4	0.00	.00	0.00	.01
5	0.00	.00	0.01	.00

Note: Results based on 50,000 year simulation of 6-10-2007.

Form M-1. Chi Square Goodness of Fit Tests

Results based on 50,000 year simulation of 6-10-2007.

Region	Saffir-Simpson Category	Number of Modeled hurricanes * per 106 year period	Number of Historical hurricanes * 1900-2005 (106 years)	Chi Square	P
State	1	18.5	27	4.86	0.18
	2	13.1	12		
	3	13.7	18		
	4-5	8.5	6		
A	1	8.8	11	3.18	0.07
	2-5	11.4	7		
B	1	3.4	9	4.48	0.11
	2	3.6	3		
	3-5	6.1	9		
C	1	5.4	7	1.58	0.45
	2	3.7	4		
	3-5	8.2	12		
F	1	3.5	6	2.7	0.26
	2	1.8	2		
	3-5	3.6	7		
By-Passing	1	4.3	4	0.0316	0.86
	2-5	6.9	7		

C. Describe model variations from the historical frequencies.

The Public model tends to under-predict the number of Cat 1 storms in Regions A, B, and C, and the number of Cat 3 storms in Regions C and F. The historical data for Regions C and F show what may be an anomalous number of Category 3 storms. Category 3 storms in Region C and F are apparently more common than the weaker Cat 1 and 2 storms. This tendency may not be realistic. The more intense hurricanes, especially major hurricanes of Category 3 or higher, are rare events that require special atmospheric and oceanic conditions to develop and thrive (Emanuel 1987, Merrill 1988, Evans 1993). Underscoring this, DeMaria and Kaplan (1995) found that on average, tropical cyclones only reach ~55% of their maximum potential intensity; therefore we would expect to find larger numbers of weak (e.g. more Cat 1 than Cat2) hurricanes than major (more Cat 2 than Cat 3, more Cat 3 than Cat 4, and more Cat 4 than Cat 5) hurricanes. We believe the early part of the historical record may have missed some of the weaker hurricanes, due to the limited population in the state at that time and the limited observing network available to document such events. For the later part of the historical record, the uncertainty in assessing peak wind speeds from historical data is such that some of the region C storms deemed to be Cat 3 are more likely to have been Cat 2, some Cat 2 storms more likely Cat 1 and some Cat 1, more likely tropical storms. Based on analyses of wind observations published in the peer-reviewed atmospheric science literature (e.g. Powell 1982, 1987, Powell et al., 1991, 1996, 1998, Powell and Aberson 2001), the intensities of Cat 1-3 hurricanes in the HURDAT database may occasionally be one category too high. Table A1 from Powell and Aberson 2001, lists landfalling hurricanes from 1975-2000 and includes several storms with alternative estimates of intensity.

TABLE A1. U.S. tropical cyclone landfalls for the Atlantic basin 1976–2000 for hurricanes and tropical storms. Maximum sustained wind speeds (MWS) are NHC official estimates, except for hurricanes (*) alternative estimates or fastest-mile (~40 s mean) winds based on published reports (see citation index), or (**) estimates for marine exposure from HRD's real-time wind analysis (http://www.aoml.noaa.gov/hrd). Short-lived storms that made landfall within 24 h of genesis are indicated by (S). See text for details on strikes and multiple (M) landfalls within a 24-h period. SS refers to Saffir–Simpson category; P is minimum sea level pressure at landfall.

Hurricanes

Year	Storm	SS Category	Location	Month	Day	Time (UTC)	Lat (°)	Long (°)	MWS (kt)	Citation	P (hPa)
1976	Belle	1	Jones Beach, NY	8	10	0500	40.7	73.3	60, 78*	1	983
1977	Babe (S)	1	Morgan City, LA	9	5	0600	29.5	91.2	65		955
1979	Bob (S)	1	Grand Isle, LA	7	11	1200	29.1	90.6	65		986
1979	David (M)	1	Palm Beach, FL	9	3	1600	27.0	80.2	80		974
1979	Frederic	4	Dauphin Island, AL	9	13	0300	30.3	88.2	126, 97*, 93*	2	946
1980	Allen	3	Brownsville, TX	8	10	0600	26.1	97.2	100		945
1983	Alicia	3	Galveston, TX	8	18	0700	29.1	95.1	100, 81* 76*	3	962
1984	Diana strike	3	Cape Fear, NC	9	12	0300	33.9	77.7	100, 100*	4	950
1984	Diana	1	Cape Fear, NC	9	13	0700	33.9	78.0	80, 68*	4	979
1985	Bob	1	Beaufort, SC	7	25	0300	32.2	80.5	65		1003
1985	Danny	1	Lake Charles, LA	8	15	1630	29.6	92.7	80		959
1985	Elena	3	Biloxi, MS	9	2	1300	30.4	89.2	110, 83*	5	959
1985	Gloria (M)	1	Long Island, NY	9	27	1600	40.6	73.3	75		961
1985	Juan	1	Morgan City, LA	10	29	1200	29.6	91.3	65		974
1985	Kate	2	Panama City, FL	11	21	2230	30.0	85.4	85		967
1986	Bonnie	1	Port Arthur, TX	6	26	1200	29.6	94.2	75		990
1986	Charley	1	Cape Lookout, NC	8	17	1400	34.7	76.5	65		990
1987	Floyd strike	1	Key West, FL	10	12	1700	24.6	81.8	65		993
1988	Florence	1	Boothville, LA	9	10	0200	29.1	89.3	70		984
1989	Chantal	1	High Island, TX	8	1	1300	29.6	94.4	70		986
1989	Hugo (M)	4	St. Croix, USVI	9	18	0600	17.7	64.8	120, 110*	6	940
1989	Hugo	4	Sullivan's Island, SC	9	22	0400	32.8	79.8	120, 114*	7	934
1989	Jerry	1	Galveston Island, TX	10	16	0030	29.2	95.0	75		983
1991	Bob (M)	2	Newport, RI	8	19	1800	41.4	71.4	85, 87*	8	964
1992	Andrew	4	Homestead, FL	8	24	0905	25.5	80.3	125, 128*	9	922
1992	Andrew	3	Point Chevreuil, LA	8	26	0830	29.6	91.5	105, 101*	10	956
1993	Emily strike	3	Cape Hatteras, NC	8	31	2100	35.2	75.1	100, 101*11		961
1995	Erin	1	Vero Beach, FL	8	2	0615	27.7	80.3	75, 55**		984
1995	Erin	1	Pensacola Beach, FL	8	3	1600	30.3	87.2	75, 79.5*	12	973
1995	Marilyn (M)	2	St. Thomas, USVI	9	16	0438	18.3	65.1	95, 89*, 89*	13	952
1995	Opal	3	Pensacola, FL	10	4	2200	30.3	87.1	100, 89*	12	942
1996	Bertha	2	Wrightsville/Topsail, NC	7	12	2000	34.3	77.8	90, 85*	14	974
1996	Fran	3	Cape Fear, NC	9	6	0030	33.9	78.1	100, 95*	14	954
1996	Hortense	1	Guanica, PR	9	10	0600	18.0	66.9	70, 60**		989
1997	Danny	1	Empire, LA	7	18	0900	29.3	89.7	65, 67**		989
1997	Danny	1	Fort Morgan, AL	7	19	1000	30.2	88.1	70, 62**		984
1998	Bonnie	2	Wilmington, NC	8	27	0330	34.4	77.7	95, 82**		964
1998	Earl	1	Panama City, FL	9	3	0600	30.1	85.7	70, 64**		987
1998	Georges	3	Fajardo, PR	9	21	2200	18.1	65.8	100, 80**		968
1998	Georges	2	Key West, FL	9	25	1530	24.5	81.8	90, 85**		981
1998	Georges	2	Biloxi, MS	9	28	1130	30.4	88.9	90, 76**		964
1999	Bret	3	Padre Island, TX	8	23	0000	26.9	97.4	100, 90**		951
1999	Dennis strike	2	Cape Lookout, NC	8	30	1330	33.7	76.0	85, 78**		965
1999	Floyd	2	Cape Fear, NC	9	16	0630	33.8	78.0	90, 83**		956
1999	Irene	1	Cape Sable, FL	10	15	2000	25.3	81.1	70, 61**		987
1999	Lenny strike	4	St. Croix, USVI	11	17	1800	17.4	64.8	135, 125**		933
2000	Debby strike	1	St. Johns, USVI	8	22	1500	18.5	64.4	65, 60**		994

The Public model also predicts Cat 4 and 5 storms in Region A, where none are in the historical record. Cat 5 hurricanes have been in relatively close proximity to regions A (1969 Camille and 2005 Katrina were off the Mississippi and Louisiana Gulf coasts). Depending on the northward extent of the Loop current and the proximity of any warm core rings to NW Florida (Vukovitch 2005), we believe that it is likely that a Cat 4 or 5 hurricane landfall affected NW Florida prior to 1900. The Public model also predicts landfalls of major (> Cat3) hurricanes in Regions D and E, where none are indicated in the 1900-2005 record. We note that major hurricanes were documented in these areas prior to 1900.

Finally we should mention that recent work by Powell and Reinhold 2007 found that the Saffir Simpson scale, since it does not take into account storm size, is a poor indicator of destructive potential. Powell and Reinhold (2007) advocate a scale which takes into account the area coverage of damaging winds as well as the physical process behind the wind loading associated with wind damage to structures. Their Wind Damage Potential scale has a continuous numerical range from 0-5.99 and is based on the storm total surface kinetic energy contributed by sustained winds over 56 mph. The WDP storm ratings will appear in H*Wind experimental wind field analysis products during the 2007 Atlantic basin hurricane season. Comparison of observed and model WDP calculations should yield more valuable information on model performance than comparing intensity or Saffir-Simpson scale ratings.

D. Provide vertical bar graphs depicting distributions of hurricane frequencies by category by region of Florida (Figure 6) and for the neighboring states of Alabama/Mississippi and Georgia. For the neighboring states, statistics based on the closest milepost to the state boundaries used in the model are adequate.

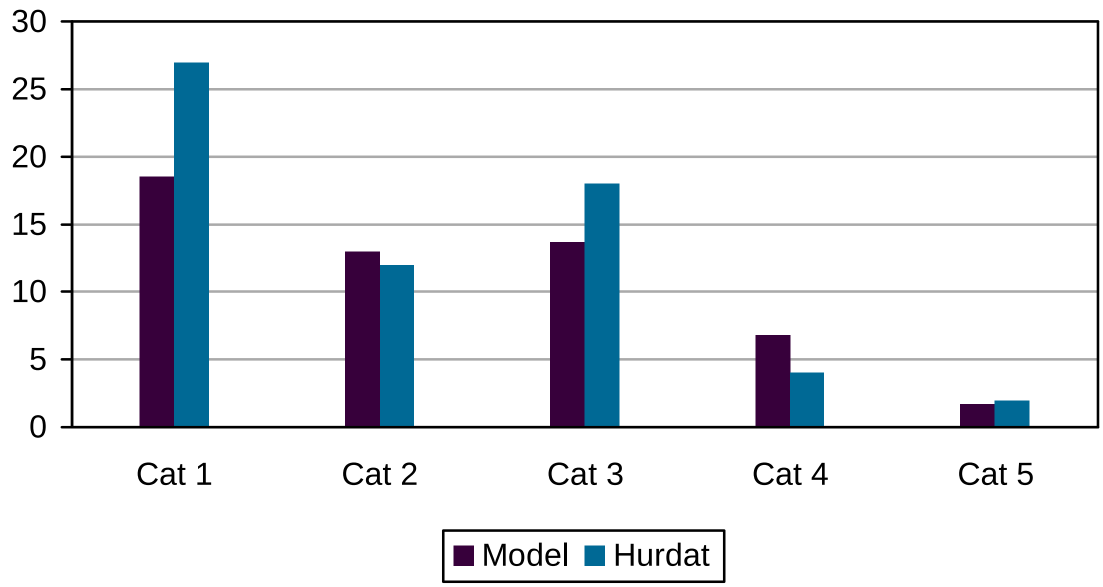


Figure 12.Form M1 comparison of modeled and historical landfalling hurricane frequency statewide.

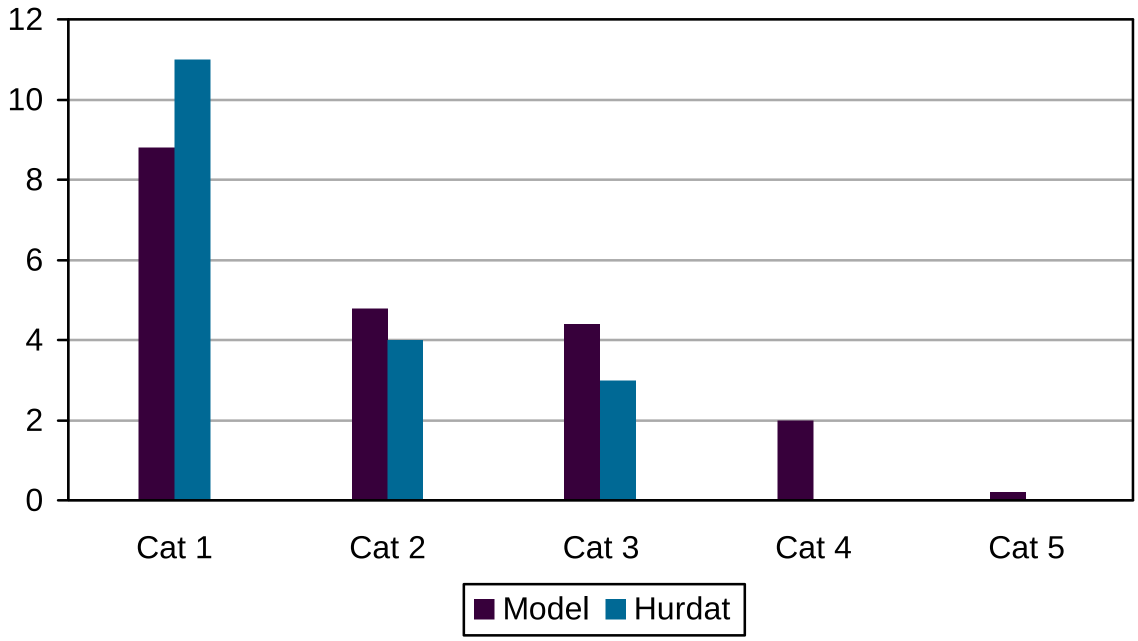


Figure 13. Form M1 comparison of modeled and historical landfalling hurricane frequency in region A

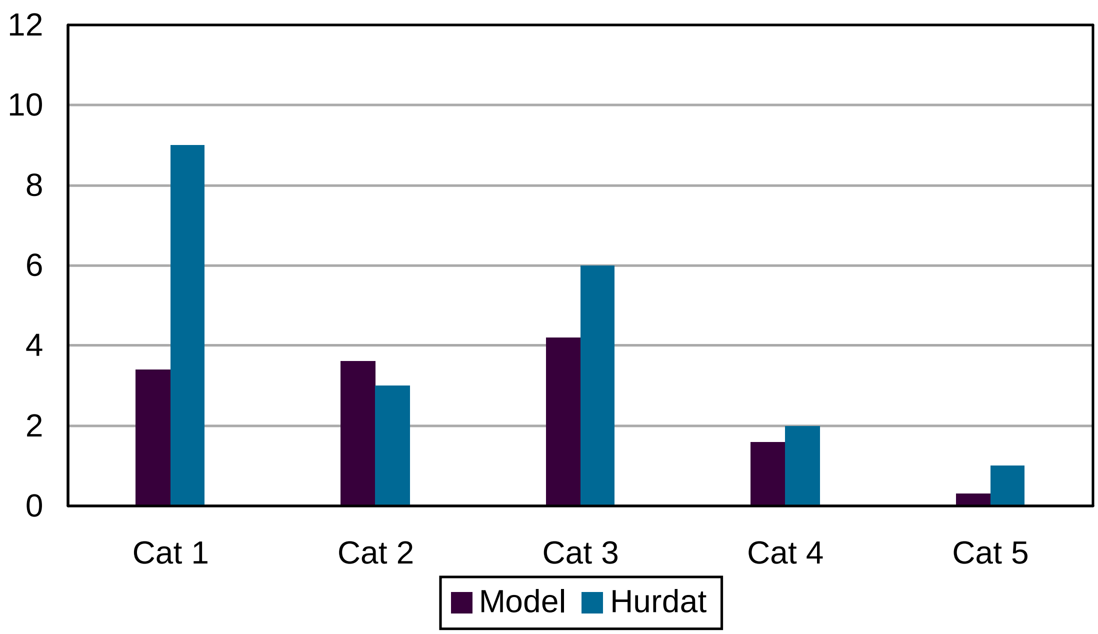


Figure 14. Form M1 comparison of modeled and historical landfalling hurricane frequency in region B

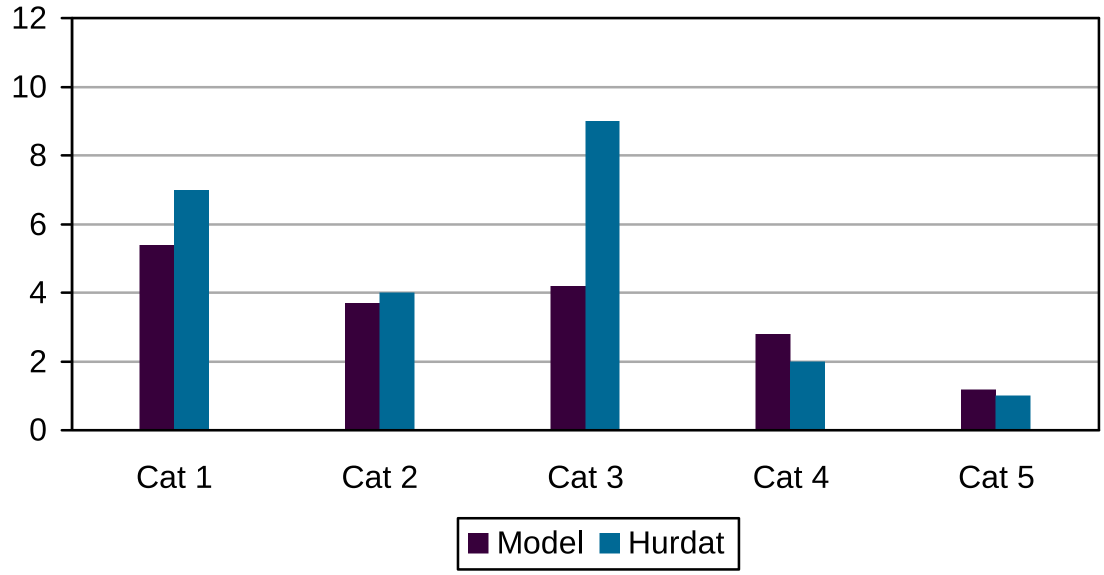


Figure 15. Form M1 comparison of modeled and historical landfalling hurricane frequency in region C

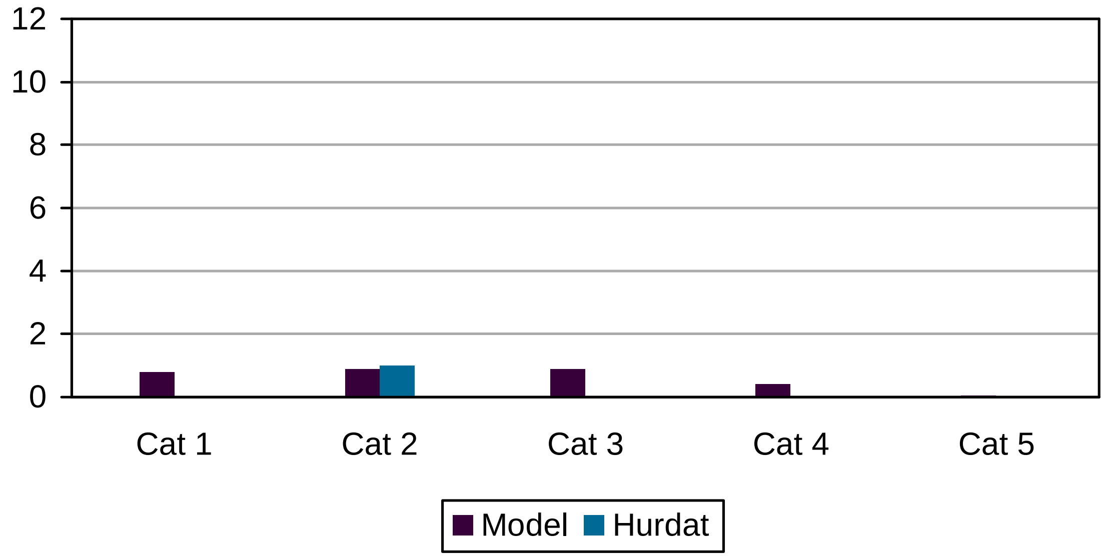


Figure 16. Form M1 comparison of modeled and historical landfalling hurricane frequency in region D

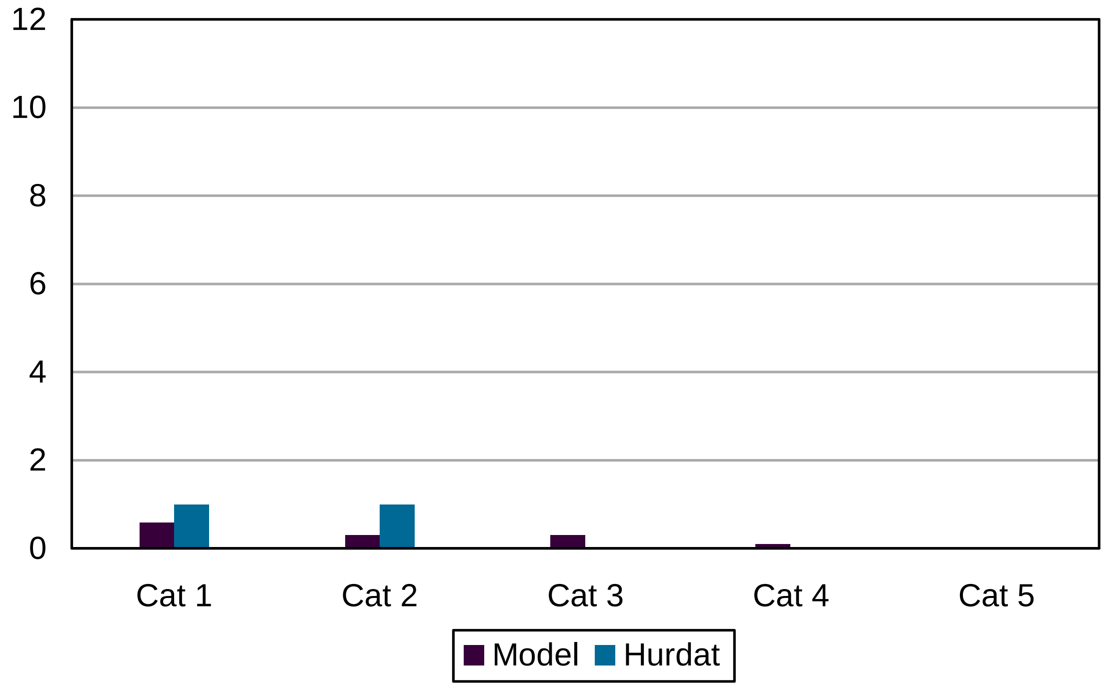


Figure 17. Form M1 comparison of modeled and historical landfalling hurricane frequency in region E

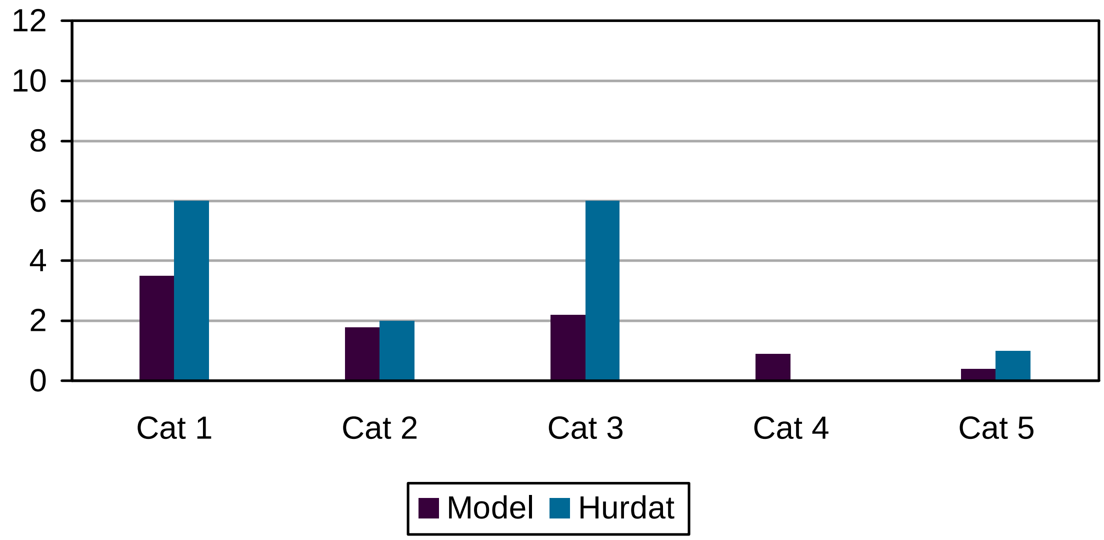


Figure 18. Form M1 comparison of modeled and historical landfalling hurricane frequency in region F

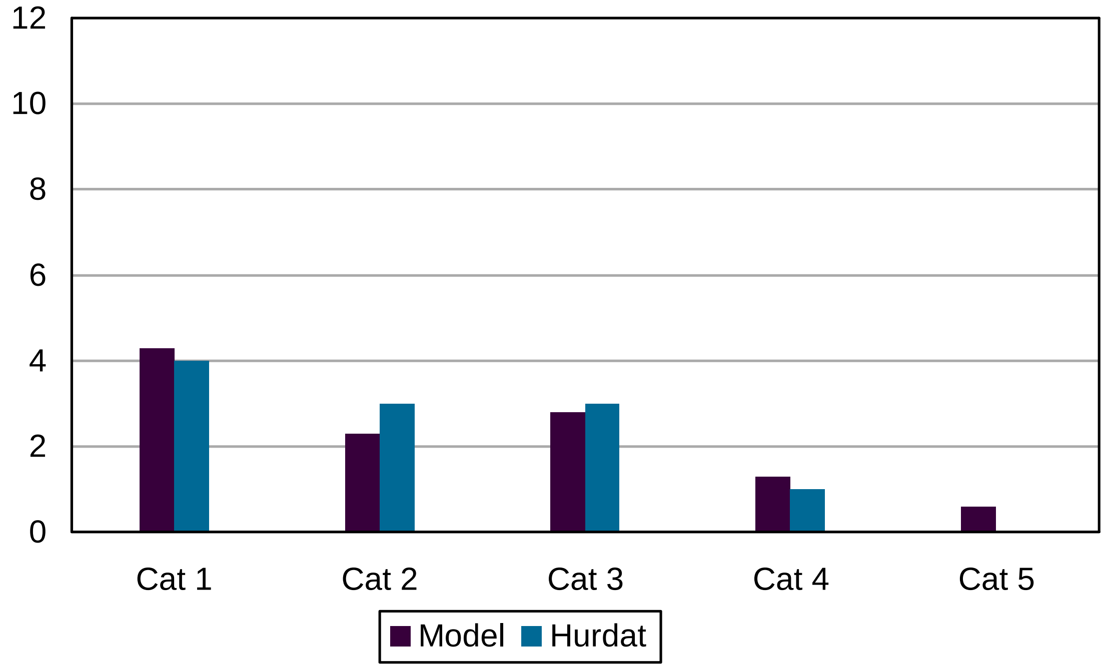


Figure 19. For Form M1 comparison of modeled and historical by-passing hurricane frequency

M-5 Land Friction and Weakening

A. The magnitude of land friction coefficients shall be consistent with currently accepted scientific literature relevant to current geographic surface roughness distributions and shall be implemented with appropriate geographic information system data.

Land friction is modeled according to the currently accepted principles of surface layer similarity theory as described in the disciplines of micrometeorology, atmospheric turbulence, and wind engineering. The geographic distribution of surface roughness is determined by careful studies of aerial photography, site visits, and satellite remote sensing measurements used to create land use - land cover classification systems. We have now incorporated the MRLC NLCD 2001 land use data set. This data set became available in Spring, 2007, and provides detailed (30 m) land use characteristics circa 2001. All population-weighted zip code centroids are assigned roughness values as a function of upstream fetch for each wind direction octant. After landfall, the surface drag coefficient used in the hurricane PBL slab model changes from a marine value to a fixed value associated with a roughness of 0.2 m.

B. The hurricane overland weakening rate methodology used by the model shall be consistent with historical records.

Overland weakening rates are based on a pressure decay model developed from historical data as described by a recent paper published in the peer-reviewed atmospheric science literature (Vickery 2005).

M-5.1 Describe and justify the functional form of hurricane decay rates used by the model.

The hurricane decay rate function acts to decrease the DelP with time after landfall. The functional form is an exponential in time since landfall and is based on historical data (Vickery 2005).

M-5.2 Describe the relevance of the gust factor used in the model.

The gust factors used in the model were developed from hurricane data and the Engineering Sciences Data Unit methods as described in Vickery and Skerlj (2005).

M-5.3 Identify all non-meteorological variables that affect the wind speed estimation (e.g., surface roughness, topography, etc.).

Upstream aerodynamic surface roughness within fixed 45 degree sector extending upstream has an effect on the determination of wind speed for a given zip code centroid and is the primary variable that affects estimation of surface wind speeds. The upstream sectors are defined according to the Tropical Cyclone Winds at Landfall Project (Powell et al., 2004), which characterized upstream wind exposure for each of eight wind direction sectors at over 200 coastal automated weather stations (Figure 20).

Figure 20. Upstream fetch wind exposure photograph for Chatham MS (left, looking north), and Panama City, FL (right, looking Northeast). After Powell et al., (2004)

M-5.4 Provide the collection and publication dates of the land use and land cover data used in the model and justify their timeliness for Florida.

We use the 2001 Multi-Resolution Land Characteristics Consortium (MRLC) National Land Cover Database released April 25, 2007. To the best of our knowledge, this is the most recent, high resolution (30 m) land cover data set that covers not only Florida, but the entire U.S, and roughly depicts land characteristics circa 2001 (see Homer et al., 2004 for more details).

M-5.5 Provide a graphical representation of the modeled degradation rates for Florida hurricanes over time compared to wind observations. Reference to the Kaplan-DeMaria decay rates alone are not acceptable.

The degradation of the wind field of a landfalling hurricane is associated with the filling of the central sea-level pressure and the associated weakening of the surface pressure gradient, as well as the fact that the hurricane is over land, where the flow is subject to friction while flowing across obstacles in the form of roughness elements. Maximum wind degradation is shown according to how the maximum sustained surface wind (at the location containing the maximum winds in the storm) changes with time after landfall. At landfall the marine exposure wind is assumed to be representative of the maximum winds occurring onshore. After landfall the open terrain wind is chosen to represent the maximum envelope of sustained winds over land. The NOAA-HRD H*Wind system is used to analyze the maximum winds at a sequence of times following landfalls of Hurricanes Katrina, Charley, Frances, Jeanne, and Wilma. H*Wind uses all available wind observations. The landfall wind field is used as a background field for times after landfall and compared to the available observations at a sequence of times after landfall. An empirical decay is applied to the background field based on the comparisons to the observations. These data are then objectively analyzed to determine the wind field at each time. The model maximum sustained winds are compared to the maximum winds from the H*Wind analyses for the same times and roughness exposures. In general, points after landfall are given for open terrain exposure. At times, even though the storm center is over land, the maximum wind speed may remain over water. For example, in the Frances plot, the first three pairs of points represent marine exposure, the next three open terrain, and the final three marine exposure again, while all Wilma point pairs represent marine exposure. The plots indicate that the Public wind field model realistically simulates decay of the maximum wind speed during the landfall process, as well as subsequent strengthening after exit.

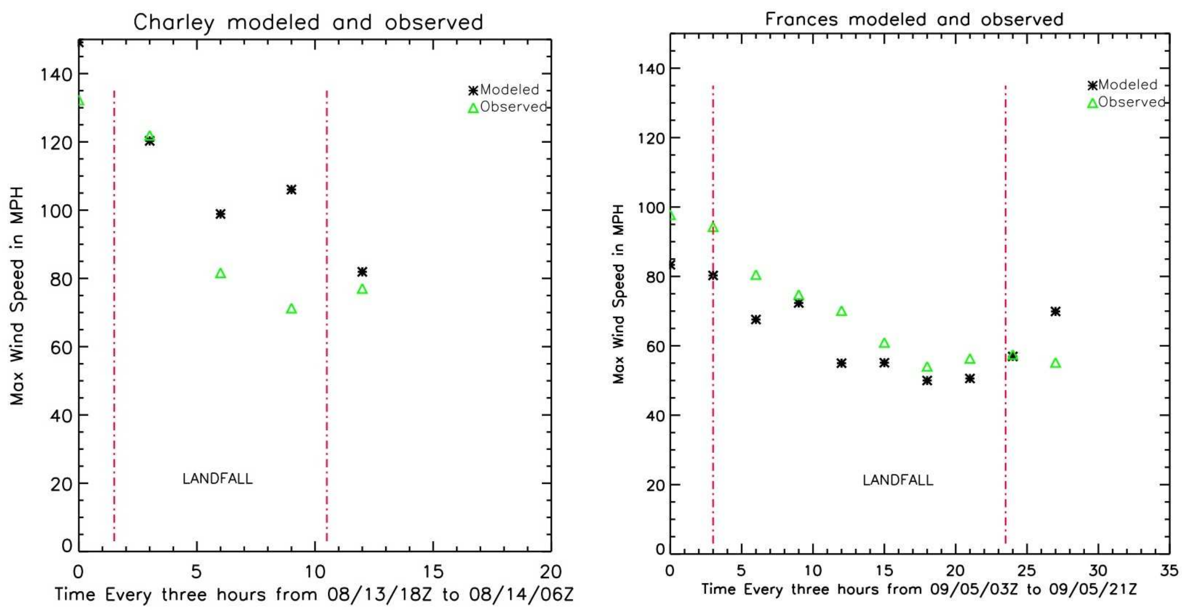


Figure 21. Observed (green) and modeled (black) maximum sustained surface winds as a function of time for 2004 Hurricanes Charley (left) and Frances (right). Landfall is represented by the vertical dash-dot red line at the left and time of exit as the red line on the right.

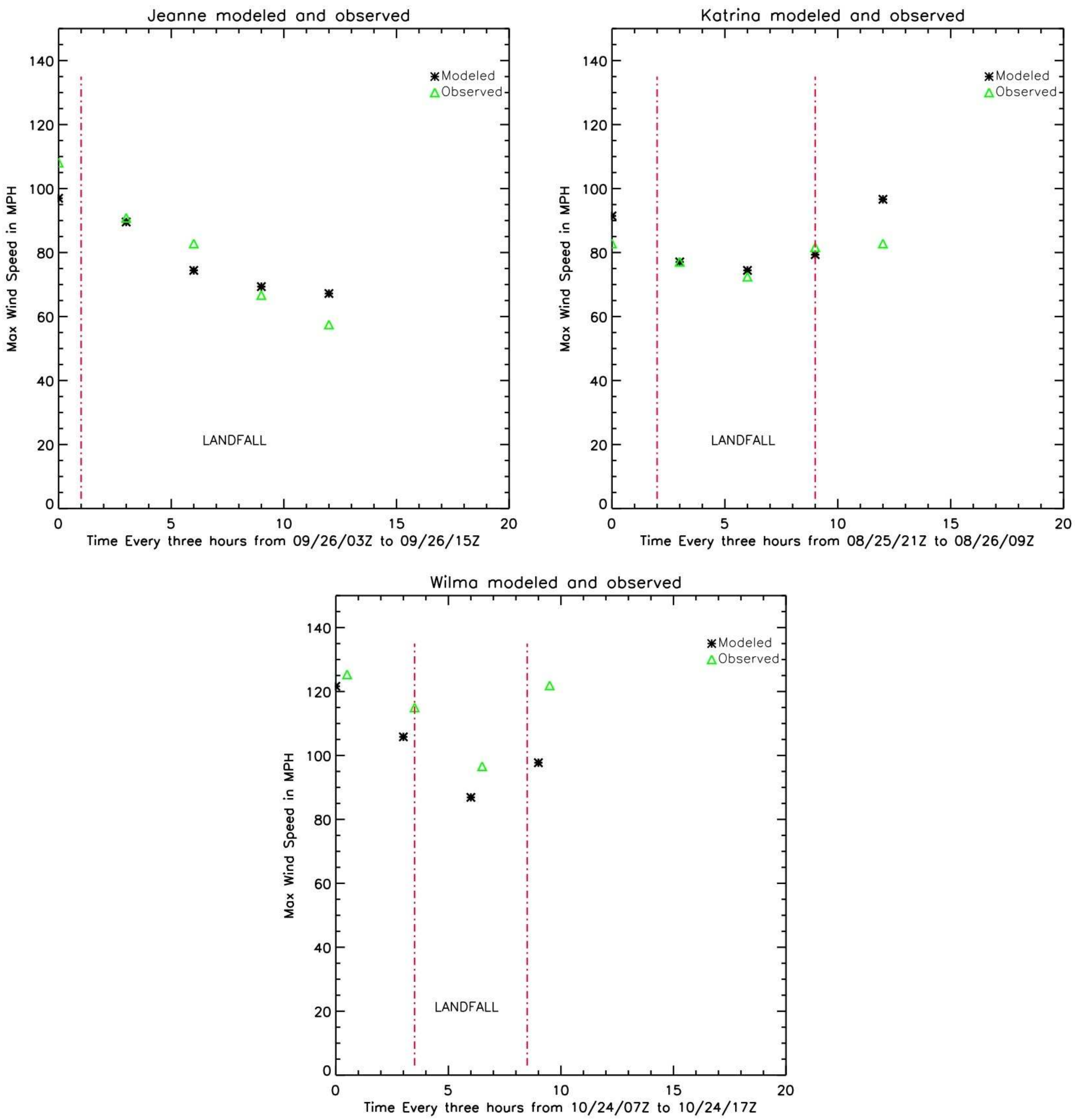


Figure 22. Observed (green) and modeled (black) maximum sustained surface winds as a function of time for Hurricanes Jeanne (2004, top left), Katrina (2005 in South Florida, top right), and 2005 Wilma (lower left). Landfall is represented by the vertical dash-dot red line at the left and time of exit as the red line on the right.

M-5.6 The spatial distribution of model-generated winds should be demonstrated to be consistent with observed winds.

See comparisons of modeled and observed wind fields in Disclosure 2.10

M-5.7 Document any differences between the treatment in the model of decay rates for stochastic hurricanes compared to historical hurricanes affecting Florida.

In the FPHLM model, decay is defined as the change in minimum sea-level pressure (Pmin) with time after landfall. The input file for the wind field model consists of a hurricane track file that contains storm position, Pmin, Rmax, and Holland B at 1h frequency. The wind field model is exactly the same for scenario (historical) or stochastic events. When running the model in scenario mode for historical hurricanes affecting Florida, we use a set of historical hurricane tracks as input to the model. When running the model in stochastic mode, the input hurricane tracks are provided by the track and intensity model. The track and intensity model uses the Vickery 2005 pressure decay after landfall. When a hurricane exits land, the Pmin over water is determined based on the Markov process as described in Disclosure G1.2

The historical tracks based on HURDAT are detailed on our web site at:

http://www.aoml.noaa.gov/hrd/lossmodel/

For historical hurricane tracks the landfall pressure is determined from HURDAT or from the Ho et al., (1987) report. If post-landfall pressure data are available in HURDAT, we interpolate pressure values over land. If post-landfall pressure data are not available, we apply the Vickery (2005) pressure decay model to the landfall pressure. After the storm exits land, the pressure is based on HURDAT data. Therefore, decay rates for historical hurricanes are based on HURDAT data if available, or the Vickery decay rate model applied to the HURDAT or Ho et al, (1987) landfall Pmin, while decay rates for stochastic hurricanes are based on Vickery 2005.

M-5.8 Provide a completed Form M-2, Maps of Maximum Winds.

Form M2 is attached.

Form M-2: Maps of Maximum Winds

A. Provide a color contour map of the maximum winds for the modeled version of the Base Hurricane Storm Set.

B. Provide a color contour map of the maximum winds for a 100-year return period from the stochastic storm set.

C. Provide the maximum winds plotted on each contour map.

Maximum winds in these maps are defined as the maximum one-minute sustained winds over the terrain as modeled and recorded at each location.

The same color contours and increments should be used for both maps.

Use the following seven isotach values:

1. *40 mph*
2. *75 mph*
3. *95 mph*
4. *110 mph*
5. *130 mph*
6. *140 mph*
7. *155 mph*

Note:

Two versions of Forms M2A and M2B were created corresponding to actual terrain and open terrain. The open terrain maps show the maximum winds or 100 year return period winds that would represent an upper envelope of winds that could occur for areas with wind exposures typical of an airport runway. The actual terrain maps show the affect of incorporating land-use land-cover data to determine, relative to the wind direction associated with the maximum wind speed, a roughness that takes into account elements upstream of the zip code centroid. The open terrain maps show the statewide variation of hurricane risk without the complication factor of roughness variation. The actual terrain maps show the combined effects of climatological risk as well as roughness variation, for example due to more tree cover in the northwest part of the state. The actual terrain acts as a mean condition due to the upstream smoothing methodology. Within a zip code assigned a relatively high roughness there could be small areas with open terrain that would experience higher winds.

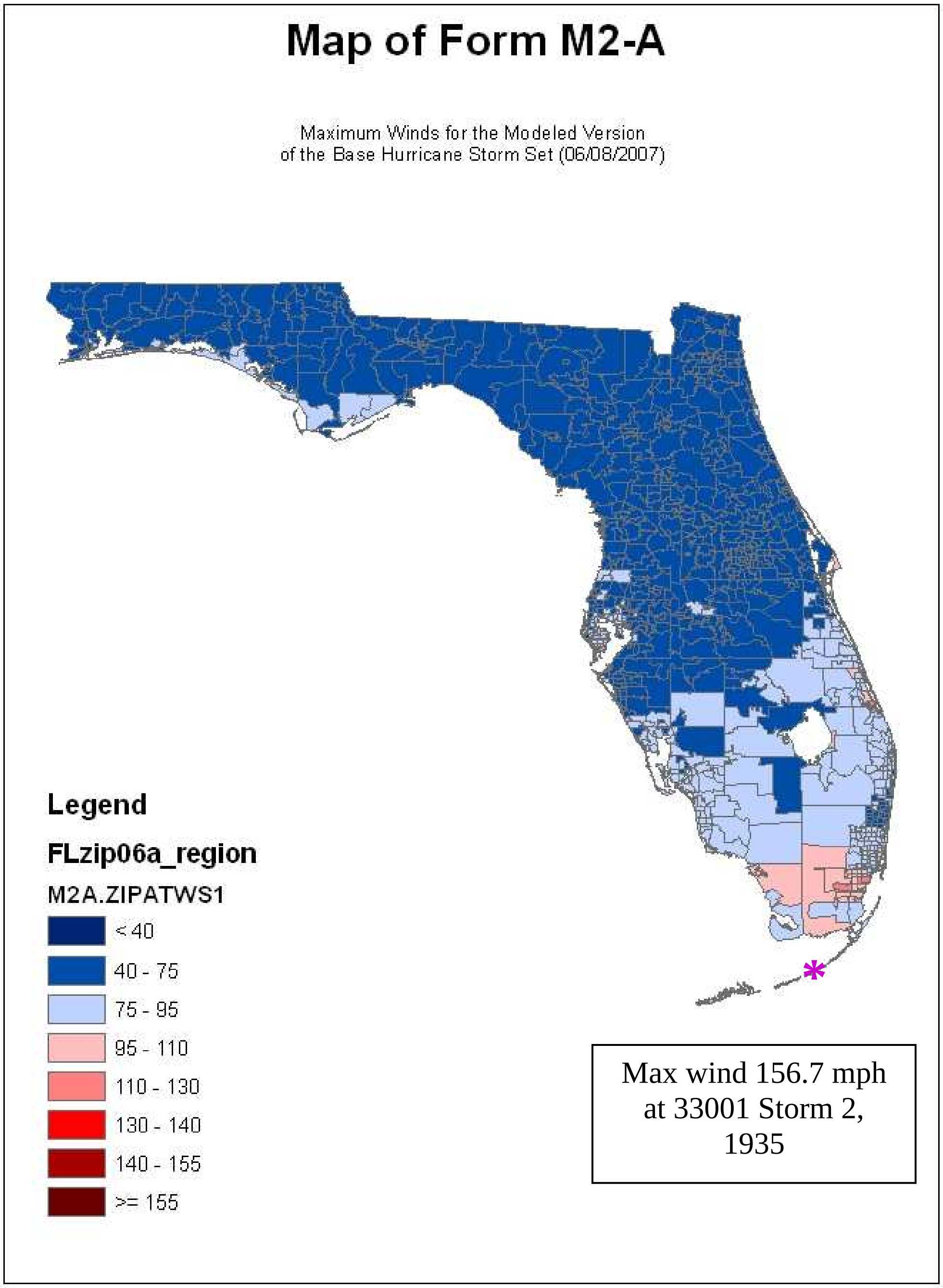


Figure 23. Maximum 1 min sustained surface (10 m) wind speeds (mph) for the hurricanes in the official base set for 1900-2005. Winds represent flow over *actual terrain roughness* **based on remotely sensed land-use / land-cover data. Location of maximum is denoted by * symbol.**

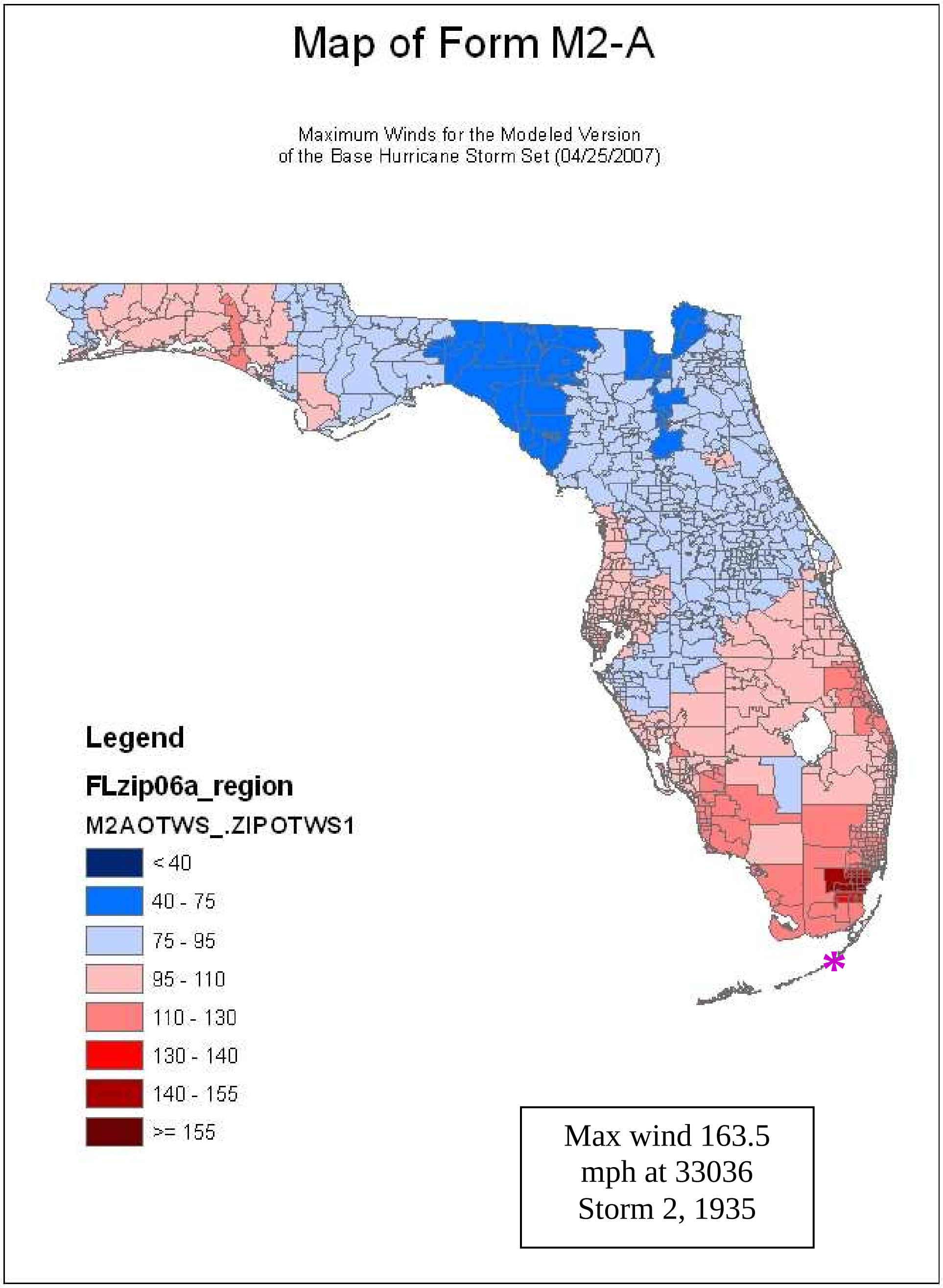


Figure 24. Maximum 1 min sustained surface (10 m) wind speeds (mph) for the hurricanes in the official base set for 1900-2005. Winds represent flow over *open terrain roughness* (0.03 m). Location of maximum is denoted by * symbol.

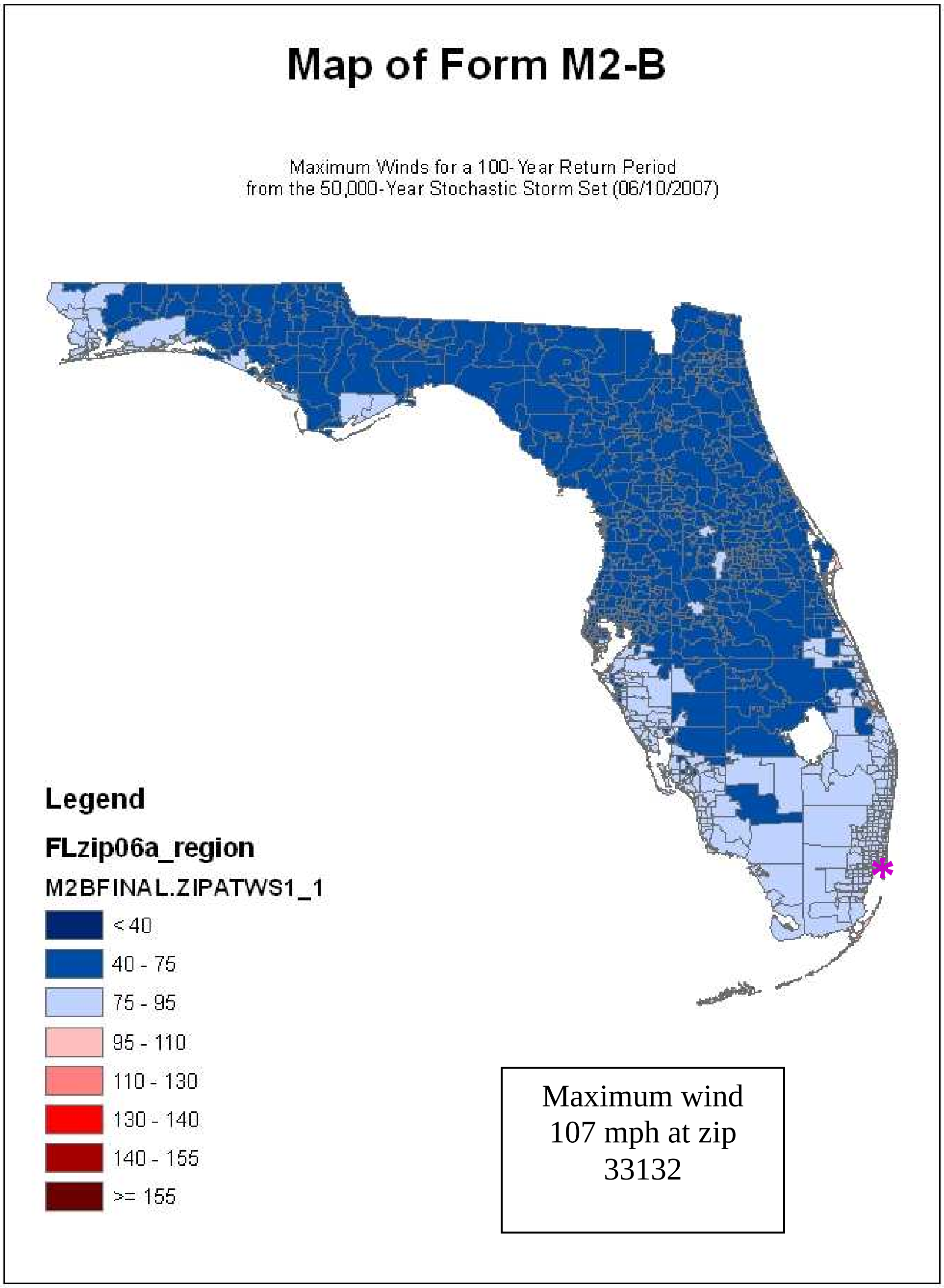


Figure 25. 100 Year return period maximum 1 min sustained surface (10 m) actual terrain wind speeds (mph) based on a 50,000 year simulation of 06-10-2007. Location of maximum is denoted by * symbol.

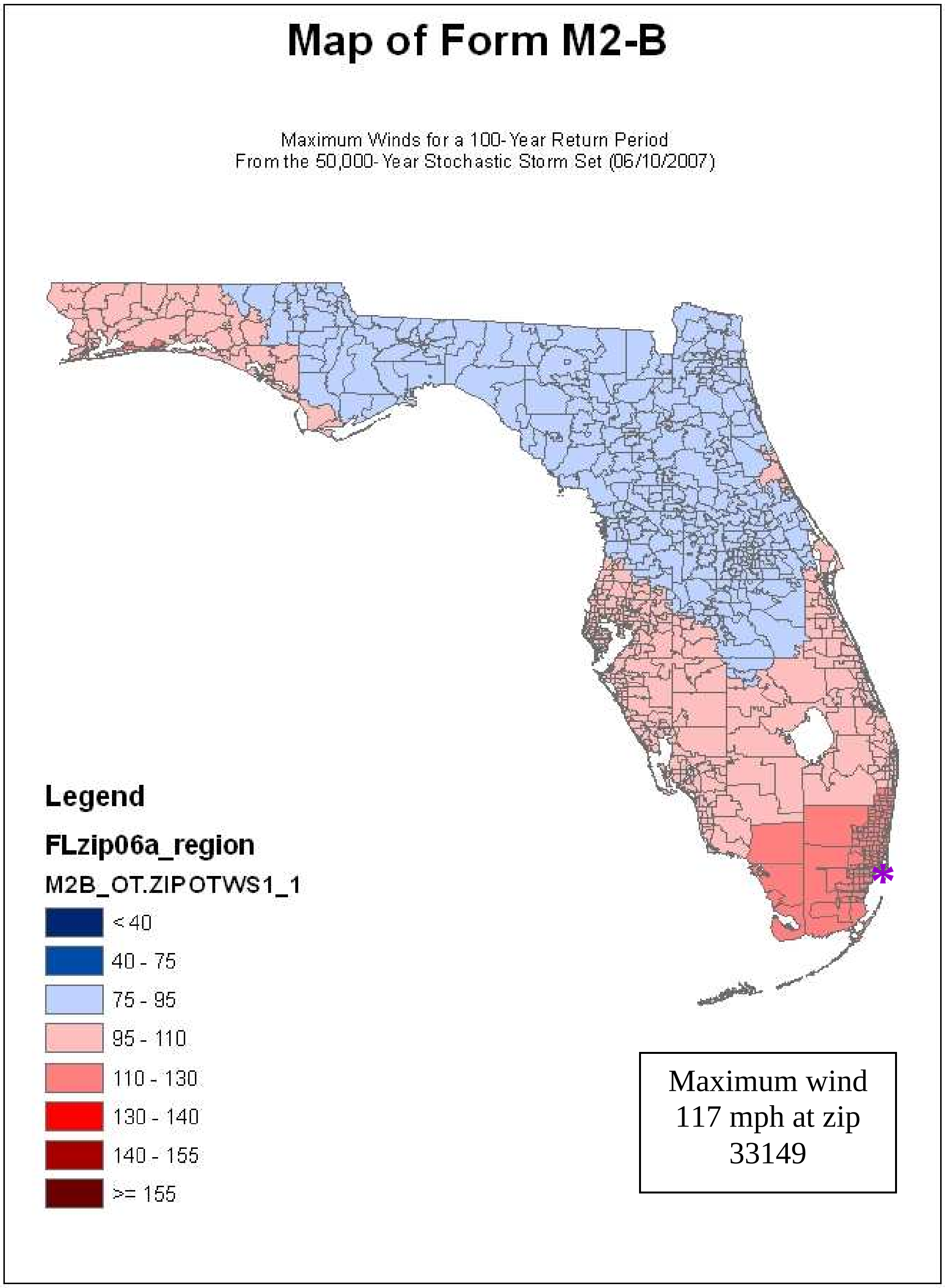


Figure 26. 100 Year return period maximum 1 min sustained surface (10 m) open terrain wind speeds (mph) based on a 50,000 year simulation of 06/10/2007. Location of maximum is denoted by * symbol.

M-6 Logical Relationships of Hurricane Characteristics

A. The magnitude of asymmetry shall increase as the translation speed increases, all other factors held constant

The storm translation speed causes a major right-left (looking in the direction the storm is moving) asymmetry in the wind field which in turn causes an asymmetry in surface friction since the surface stress is wind speed dependent. The magnitude of the asymmetry increases as the translation speeds increases; there is no asymmetry for a stationary storm except for possible land friction effects if a storm becomes stationary while a large percentage of its circulation is over both land and water.

B. The mean wind speed shall decrease with increasing surface roughness (friction), all other factors held constant.

All other factors held constant, the mean wind speed decreases with increasing surface roughness. However, the gust factor, which is used to estimate the peak one min wind and the peak 3 s gust over the time period corresponding to the model mean wind increases as a function of turbulence intensity, which increases with surface roughness (Paulsen et al., 2003, Masters 2004, Powell et al., 2004). For roughness values representative of zip codes in Florida with residential roughness values on the order of 0.2 - 0.3 m, the roughness effect on decreasing the mean wind speed overwhelms the enhanced turbulence intensity effect that increases the gust factor.

M-6.1. Provide a completed Form M-3, Radius of Maximum Winds.

Form M-3 follows.

Form M-3: Radius of Maximum Winds

A. For the central pressures in the table below, provide ranges for radius of maximum winds used by the model to create the stochastic storm set.

B. Identify the other variables that influence Rmax.

Table 7. Stochastic central pressures and Rmax range. Rmax is sampled from a Gamma distribution. The parameters of the distribution depend on Pmin

Central Pressure (mb)	Range of Rmax (sm)
900	4-11
910	7 - 19
920	4 - 21
930	7 - 48
940	6- 55
950	6 - 60
955	7-58
960	7-58
965	5 - 59
970	5-58
975	4 -54
980	5 -56
985	4 - 54
990	4 - 51

C. Provide a representative scatter plot of Central Pressure (x-axis) versus Rmax (y-axis) to demonstrate relative populations and continuity of sampled hurricanes in the stochastic storm set. "Representative" means that the relative distribution of hurricane frequencies across both Central Pressure and Rmax ranges should be evident.

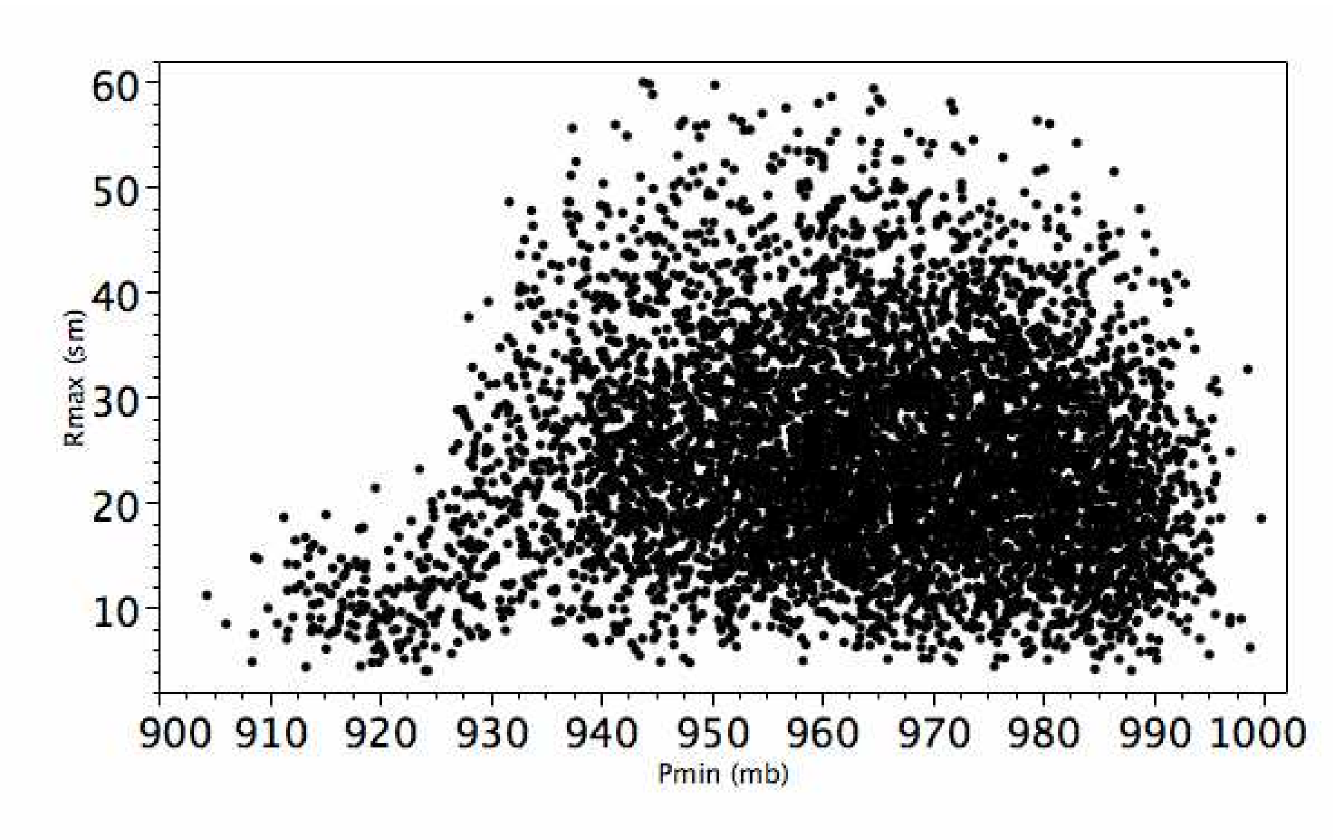


Figure 27. Form M3 representative plot of landfall radius of maximum surface wind speed (Rmax) in statute miles vs. landfall minimum central sea-level pressure (Pmin) in millibars from a 10,600 year simulation conducted on 8 June, 2007.

VULNERABILITY STANDARDS

V-1 Derivation of Vulnerability Functions

A. Development of the vulnerability functions is to be based on a combination of the following: (1) historical data, (2) tests, (3) structural calculations, (4) expert opinion, or (5) site inspections. Any development of the vulnerability functions based on structural calculations or expert opinion shall be supported by tests, site inspections, or historical data.

✓ The development of the vulnerabilities is based on a component approach that combines engineering modeling and simulations with engineering judgment and observed (historical) data. The determination of external damage to buildings is based on structural calculations, tests, and Monte Carlo simulations. The wind loads and strength of the building components in the simulations are based on laboratory and in-situ tests, manufacturer’s data, expert opinion based on site inspections of actual damage post-hurricane, and code and standards. The internal and content damage are extrapolated from the external damage based upon expert opinion, and confirmed using historical claims data and site inspections of areas impacted by recent hurricanes.

B. The method of derivation of the vulnerability functions shall be theoretically sound.

✓ The method used in the derivation is based on extrapolating the results of Monte Carlo simulations of physical exterior damage, through simple equations based on engineering judgment, expert opinions, and claims data. Uncertainties at each stage are accounted by distributing the damage according to reasonable probability distributions and validated with claims data.

C. Any modification factors/functions to the vulnerability functions or structural characteristics and their corresponding effects shall be clearly defined and be theoretically sound.

✓ The Monte Carlo component models take into account many variations in structural characteristics and the result clearly filters through the cost estimation model. There are also different and clearly defined costing considerations applied to each structural type. These adjustments come directly from resources developed exclusively for defining repair costs to structures and therefore are theoretically sound.

D. Construction type and construction characteristics shall be used in the derivation and application of vulnerability functions.

- ✓ A detailed exposure study was carried out to define the most significant (prevalent) construction types and characteristics in the Florida residential building stock, for different regions of the State. The corresponding engineering models were built for each of the identified common structural types. The models include differing wall types (wood, masonry) of varying strengths (e.g., reinforced or not, various sill plate connection types), differing roof shapes (hip and gable end) and their affect on uplift loading, various strengths of roof to wall connections (toe nail up through straps), varying window types and sizes, opening protection systems, varying garage door pressure capacities, and one and two story houses.
- ✓ Models of varying combinations of the above characteristics (e.g. wood frame, gable end, no window shutters) were created for four different regions in Florida, where the region dictates the square footage footprint of the model. In all cases, the probabilistic capacities of the various components were determined by a variety of sources, including laboratory testing, literature search of testing, in-field data collection (post hurricane damage evaluations), manufacturer's specifications as well as manufacturer's test data when available, and expert opinion.

E. In the derivation and application of vulnerability functions, assumptions concerning building code revisions and building code enforcement shall be reasonable and be theoretically sound.

- ✓ The structural models include options that allow the representation of building code revisions. Three models were derived for each structural type: weak construction, medium construction, and strong construction (post-SSTD 10 deemed to comply standard). For example, the model for northern wood frame and gable roof homes has weak, medium and strong versions of that same model. The assignment of a given strength level is based on the assumed age of the home being modeled and the available information on construction practice in that region of the state in that era of construction. Florida Building Code requirements that apply to the repair of existing homes are also taken into consideration when computing the repair costs of a structure. Separate models were also developed for manufactured housing constructed based on pre and post 1994 HUD regulations, and for different wind zones.
- ✓ In addition to the various models that reflect construction type, region of Florida, and era of construction (weak, medium or strong construction), each model has numerous additional strength features that can be adjusted before simulations are conducted in order to represent various combinations of

mitigation features. For example, weak constructed home in central Florida with masonry walls (no reinforcing) may have been recently re-roofed with modern code approved shingles. The simulation model is capable of reflecting this combination of weak original construction with new strong roof mitigation.

F. Vulnerability functions shall be separately derived for building structures, mobile homes, appurtenant structures, contents, and additional living expenses.

- ✓ This requirement is fully met. The building structures, mobile homes and appurtenant structures are independently derived. The contents and additional living expenses are separate vulnerabilities, which are functions of (receiving input from) the results of structure vulnerability simulations.

G. The minimum wind speed that generates damage shall be reasonable.

- ✓ The minimum one-minute average sustained wind speed at which some damage is observed is 38 mph (3 second gust 50 mph) for appurtenant structures. Site-built and manufactured homes have a very small probability of some very minor damage at 42 mph (3 second gust 55 mph). This probability becomes more significant at 46 mph (3 second gust 60 mph) and increases from there. Simulations are run for a series of 3-second gusts from 50 mph to 250 mph.

Disclosures

1. ***Provide a flow chart documenting the process by which the vulnerability functions are derived and implemented.***

The following flow chart summarizes the procedure used in the Monte Carlo simulations to predict the external damage to the different structural types. The random variables include wind speed, pressure coefficients, and the resistances of the various building components (roof cover, roof sheathing, openings, walls, connections).

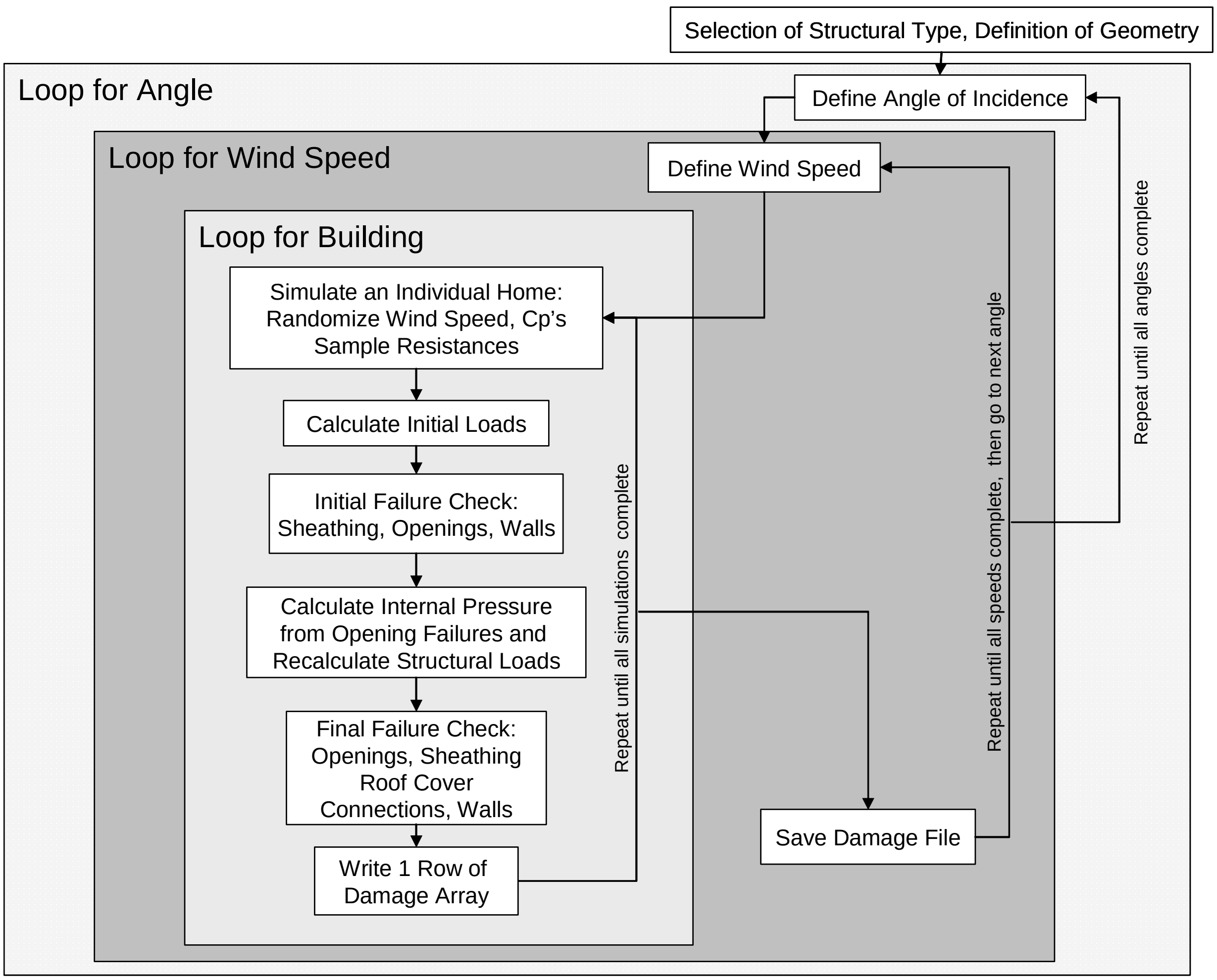


Figure 28. Monte Carlo Simulation Procedure to Predict Damages

The following flow chart summarizes the procedure used to convert the results of the Monte Carlo simulations of physical external damage into a vulnerability matrix.

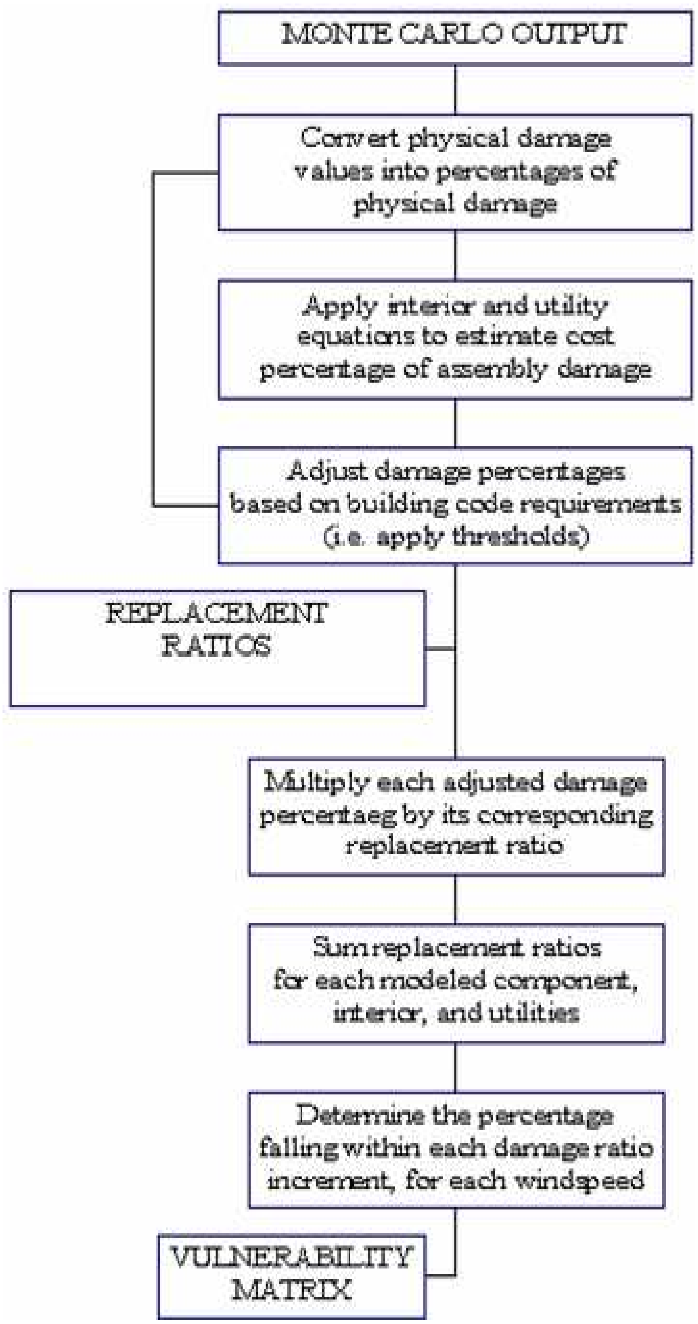


Figure 29. Procedure to create vulnerability matrix

2. ***Describe the nature and extent of actual insurance claims data used to develop the model's vulnerability functions. Describe in detail what is included, such as, number of policies, number of insurers, and number of units of dollar exposure, separated into personal lines, commercial, and mobile home.***

At the request of the FDFS, four insurance companies provided insurance claims data for several hurricanes that impacted Florida prior to 2004, including Andrew. The companies provided two types of files:

- Sample files with 10% of the exposure selected at random, plus the claims on this 10% exposure, since 1996.
- Hurricane files with premium files for all hurricane claims since 1996, plus all the corresponding claim data since 1996

Because of a confidentiality agreement these companies will remain anonymous (they will be referred to as company A, B, C, and D). They represent between 75 and 85% of the insured exposure in the State, and approximately 70% of the claims. Most of the data provided comes only from minor hurricanes and tropical storms that impacted Florida between 1994 and 2002.

The only significant data was provided by company A in particular for Hurricane Andrew. As shown in Table 8 and Figure 30, this data covers the complete range of structural and contents losses. Wind speed measurements are also available so validation efforts were primarily concentrated on the use of this data. Attempts were made to make use of additional data from Hurricane Opal and other storms; however for the most part, the amount of processed data available was too small to be statistically significant for validation.

Table 8. Summary of processed claims data (number of claims provided)

	Hurricane Andrew	Hurricane Georges	Hurricane Opal	Tropical Storm Irene	Tropical Storm Earl	Hurricane Erin
Company A						
Concrete	78636	266	1973	3638	59	11460
Timber	1603	1078	9166	776	89	11878
Manufactured	1775	0	256	184	16	690

Note: Only building, contents, and appurtenant structure claims were provided by company A (ALE was not provided).

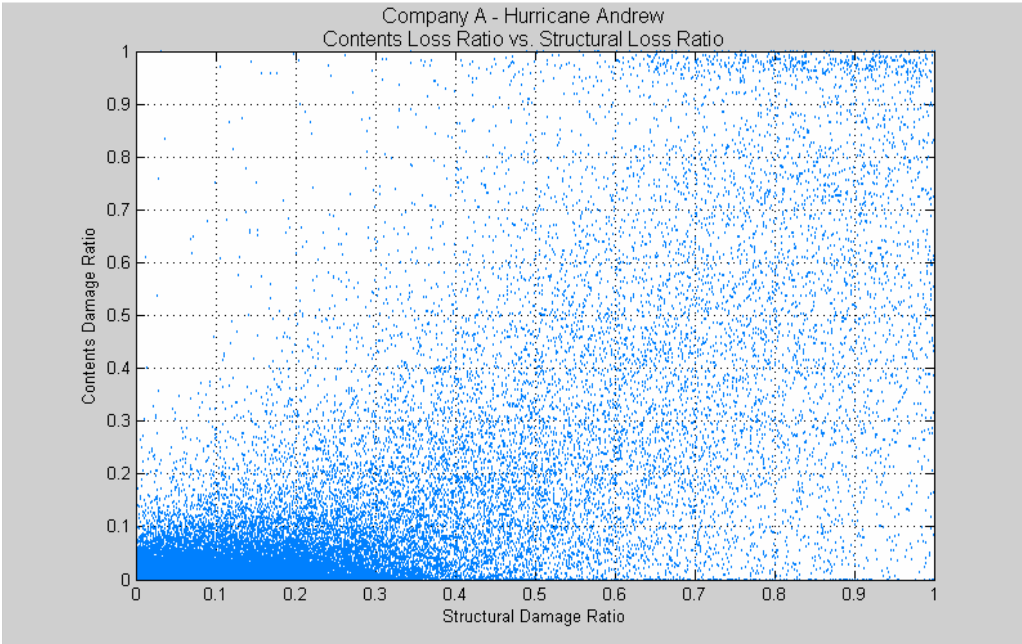


Figure 30. Company A, Hurricane Andrew structure vs. contents losses

Claim data for the 2004 hurricane season, from a series of insurance companies, was also used to validate FPHLPM. Although 21 companies submitted data, for a total of almost 675,000 claims, only two main companies are detailed here. These two companies (they will be referred as Company 1 and Company 2) represent 386,000 claims, mainly for site-built homes. These claims are divided between hurricanes Charley, Frances, and Jeanne for central Florida, and hurricane Ivan for the Panhandle. The validation consists of a series of comparisons between the actual claim data and the FPHLPM results (i.e. model results). The damage from all these hurricanes was reported to the insurance companies (by the insurers), who provided the claims files. Table 9 to Table 11 give the number of policies provided by the two Companies, for the four different hurricanes in 2004. As expected, there is more masonry claims in Central Florida, and more timber claims in the Panhandle.

Table 9. Company 1: Claim Number for each year built category

Company	Hurricane	Construction	Year Built	Actual Number of Claims
Company 1	Charley	Masonry	yb<1970	5026
Company 1	Charley	Masonry	1970<=yb<1984	8216
Company 1	Charley	Masonry	1984<=yb<1994	11850
Company 1	Charley	Masonry	yb>=1994	8110
Company 1	Charley	Frame	yb<1970	956
Company 1	Charley	Frame	1970<=yb<1984	1232
Company 1	Charley	Frame	1984<=yb<1994	3044
Company 1	Charley	Frame	yb>=1994	677
Company 1	Charley	Manufactured	yb<1970	2966
Company 1	Charley	Manufactured	yb>=1994	212
Company 1	Frances	Masonry	yb<1970	5009
Company 1	Frances	Masonry	1970<=yb<1984	6989
Company 1	Frances	Masonry	1984<=yb<1994	7903
Company 1	Frances	Masonry	yb>=1994	4384
Company 1	Frances	Frame	yb<1970	902
Company 1	Frances	Frame	1970<=yb<1984	2081
Company 1	Frances	Frame	1984<=yb<1994	5648
Company 1	Frances	Frame	yb>=1994	721
Company 1	Frances	Manufactured	yb<1970	3186
Company 1	Frances	Manufactured	yb>=1994	222
Company 1	Ivan	Masonry	yb<1970	2029
Company 1	Ivan	Masonry	1970<=yb<1984	2099
Company 1	Ivan	Masonry	1984<=yb<1994	1719
Company 1	Ivan	Masonry	yb>=1994	1769
Company 1	Ivan	Frame	yb<1970	3048
Company 1	Ivan	Frame	1970<=yb<1984	3956
Company 1	Ivan	Frame	1984<=yb<1994	4829
Company 1	Ivan	Frame	yb>=1994	3890
Company 1	Ivan	Manufactured	yb<1970	634
Company 1	Ivan	Manufactured	yb>=1994	79
Company 1	Jeanne	Masonry	yb<1970	3601
Company 1	Jeanne	Masonry	1970<=yb<1984	5274
Company 1	Jeanne	Masonry	1984<=yb<1994	5698
Company 1	Jeanne	Masonry	yb>=1994	4999
Company 1	Jeanne	Frame	yb<1970	825
Company 1	Jeanne	Frame	1970<=yb<1984	1386
Company 1	Jeanne	Frame	1984<=yb<1994	3430
Company 1	Jeanne	Frame	yb>=1994	674
Company 1	Jeanne	Manufactured	yb<1970	2717
Company 1	Jeanne	Manufactured	yb>=1994	177

Table 10. Company 2: Claim Number for each year built category

Company	Hurricane	Construction	Year Built	Actual Number of Claims
Company 2	Charley	Masonry	yb<1970	8677
Company 2	Charley	Masonry	1970<=yb<1984	15085
Company 2	Charley	Masonry	1984<=yb<1994	18324
Company 2	Charley	Masonry	yb>=1994	6376
Company 2	Charley	Frame	yb<1970	1920
Company 2	Charley	Frame	1970<=yb<1984	1782
Company 2	Charley	Frame	1984<=yb<1994	3786
Company 2	Charley	Frame	yb>=1994	443
Company 2	Charley	Manufactured	yb<1970	1843
Company 2	Charley	Manufactured	yb>=1994	159
Company 2	Frances	Masonry	yb<1970	8276
Company 2	Frances	Masonry	1970<=yb<1984	11978
Company 2	Frances	Masonry	1984<=yb<1994	11394
Company 2	Frances	Masonry	yb>=1994	3224
Company 2	Frances	Frame	yb<1970	1453
Company 2	Frances	Frame	1970<=yb<1984	3202
Company 2	Frances	Frame	1984<=yb<1994	7731
Company 2	Frances	Frame	yb>=1994	601
Company 2	Frances	Manufactured	yb<1970	1590
Company 2	Frances	Manufactured	yb>=1994	131
Company 2	Ivan	Masonry	yb<1970	1399
Company 2	Ivan	Masonry	1970<=yb<1984	746
Company 2	Ivan	Masonry	1984<=yb<1994	449
Company 2	Ivan	Masonry	yb>=1994	275
Company 2	Ivan	Frame	yb<1970	4004
Company 2	Ivan	Frame	1970<=yb<1984	5546
Company 2	Ivan	Frame	1984<=yb<1994	4637
Company 2	Ivan	Frame	yb>=1994	2229
Company 2	Ivan	Manufactured	yb<1970	171
Company 2	Ivan	Manufactured	yb>=1994	41
Company 2	Jeanne	Masonry	yb<1970	6907
Company 2	Jeanne	Masonry	1970<=yb<1984	10767
Company 2	Jeanne	Masonry	1984<=yb<1994	9629
Company 2	Jeanne	Masonry	yb>=1994	4176
Company 2	Jeanne	Frame	yb<1970	1555
Company 2	Jeanne	Frame	1970<=yb<1984	2087
Company 2	Jeanne	Frame	1984<=yb<1994	4561
Company 2	Jeanne	Frame	yb>=1994	484
Company 2	Jeanne	Manufactured	yb<1970	1401
Company 2	Jeanne	Manufactured	yb>=1994	128

Table 11. Company 1 and Company 2: Claim Numbers Combined

Company	Hurricane	Construction	Actual Number of Claims
Company 1	Charley	Masonry	33202
Company 1	Charley	Frame	5909
Company 1	Charley	Manufactured	3178
Company 1	Charley	Other	260
Company 1	Frances	Masonry	24285
Company 1	Frances	Frame	9352
Company 1	Frances	Manufactured	3408
Company 1	Frances	Other	566
Company 1	Ivan	Masonry	7616
Company 1	Ivan	Frame	15723
Company 1	Ivan	Manufactured	713
Company 1	Ivan	Other	100
Company 1	Jeanne	Masonry	19572
Company 1	Jeanne	Frame	6315
Company 1	Jeanne	Manufactured	2894
Company 1	Jeanne	Other	331
Company 2	Charley	Masonry	48691
Company 2	Charley	Frame	7981
Company 2	Charley	Manufactured	2002
Company 2	Charley	Other	582
Company 2	Frances	Masonry	35036
Company 2	Frances	Frame	13015
Company 2	Frances	Manufactured	1721
Company 2	Frances	Other	1134
Company 2	Ivan	Masonry	2875
Company 2	Ivan	Frame	16466
Company 2	Ivan	Manufactured	212
Company 2	Ivan	Other	87
Company 2	Jeanne	Masonry	31705
Company 2	Jeanne	Frame	8716
Company 2	Jeanne	Manufactured	1529
Company 2	Jeanne	Other	1167

In addition, the claims are divided by the type of coverage for structure and contents. Company 1 has two types of coverage, replacement cost, and actual cash value, without specifying if for each claim both structure and contents have the same coverage for each claim.

For company 2, there are 6 types of coverage as shown below.

ACV S/ACV C Structure Actual-Cash-Value, Contents Actual-Cash-Value
ACV S/RC C Structure Actual-Cash-Value, Contents Replacement-Cost
RC S/ACV C Structure Replacement-Cost, Contents Actual-Cash-Value
RC S/RC C Structure Replacement-Cost, Contents Replacement-Cost
SV S/RC C Structure Stated-Value, Contents Replacement-Cost

SV S/SV C   Structure Stated-Value, Contents Stated-Value

Table 12 and Table 13 summarize the distribution of claims in both companies.

Table 12. Distribution of coverage for Company 1

Coverage	Premium Policy Count		Claim Policy Count	
A	44020	1%	2759	2%
R	3706219	99%	163692	98%
Total	3750240		166451	

Table 13. Distribution of coverage for Company 2

Coverage	Premium Policy Count		Claim Policy Count	
ACV S/ACV C	13173	3%	3496	3%
ACV S/RC C	44805	10%	12150	9%
RC S/ACV C	162122	35%	41484	30%
RC S/RC C	232688	51%	77146	57%
SV S/RC C	235	0%	69	0%
SV S/SV C	6019	1%	1717	1%
Total	459042	100%	136062	100%

In addition, there is 29,372 claims with $0 losses (i.e., Loss structure+Loss app+Loss contents + Loss ALE = 0) though they are listed in the claim file of company 2. They probably correspond to claims whose losses were lower than the deductible.

3. Summarize site inspections, including the source, and a brief description of the resulting use of these data in development, validation, or verification of vulnerability functions.

Several damage surveys were done in 2004. Damage from Charley was reported all across the state with the most severe being where the eye made landfall near the cities of Punta Gorda and Port Charlotte. The extent of the structural damage to homes and manufactured homes in these cities was surveyed by a team that consisted of around 30 members from UF, FIU, Clemson, and FIT and was conducted under the leadership of the Institute for Business and Home Safety (IBHS). For several days following the storm the team conducted a detailed statistical survey of damage in the impacted areas. Results of this survey can be found on the IBHS website http://www.ibhs.org/, and other information regarding the damage of Charley and other storms can be found at the Florida Tech Wind and Hurricane Impact Research Laboratory website, http://www.fit.edu/research/whirl/.

Damage from Frances was surveyed in areas from Cocoa Beach to Stuart in eastern FL. Although damage from Frances was not nearly as severe as from Charley the same extensive survey conducted in Punta Gorda and Port Charlotte was also conducted in the impacted areas. Great efforts were made to monitor the strength and resulting damage from the storm, as part of the Florida Coastal Monitoring Program. Towers were set up to record wind speeds all along the coast in locations where the storm was forecast to make landfall. Sensors to record the wind induced pressure were deployed on the roofs of several homes. Following the storm, members of the same team that surveyed Charley, photographed and recorded damage throughout the area. Areas of Fort Pierce appeared to be hardest hit with severe damage to many homes in some areas.

Similar efforts as were taken for Frances to monitor the winds and survey the damage were taken for Jeanne. Towers and pressure sensors were again deployed at various locations near where landfall was forecast. Following the storm members of the team surveyed areas from Stuart to Cocoa Beach. These surveys consisted primarily of cataloging and photographing various observations of damage in the impacted areas, as was done with Frances. Damage from Hurricane Jeanne in many locations was very similar to what was seen from Hurricane Frances. In many cases damage to structures that was initially caused by Frances was compounded by Jeanne. Fatigue of structures from the winds of two hurricanes within three weeks most likely played a roll in the most severe cases of damage in the areas such as Vero Beach and Fort Pierce. On a positive note, in some areas most of the weak trees and components of home (shingles, screened porches, fences, etc.) were already “cleaned up” by Frances so when Jeanne hit little or no further damage was seen. Without knowledge of the area it would be very difficult to tell what damage was caused by Jeanne and what was caused by Frances.

Additionally, engineers working on the physical damage model performed a detailed residential damage study after the 2004 hurricane season in order to assess the performance of housing built to the Florida Building Code and the Standard Building Code. The data was collected as a part of a study conducted by UF and sponsored by the Florida Building Commission. Site built single family homes constructed after Andrew-related changes to the standard building code were in effect were targeted for a detailed investigation of damage as a result of the 2004 hurricane season. The purpose of this study was to provide a quantitative statistical comparison of the relative performance of homes built between 1994 and 2001 with those built after the 2001 Florida Building Code replaced the Standard Building Code. This evaluation was accomplished through a systematic survey of homes built from 1994 to 2004 in the areas that experienced the highest wind speeds from the 2004 storms (Charlotte, St. Lucie, Escambia and Santa Rosa counties). A statistically significant number of homes were surveyed (close to 200) in these regions in order to define correlations between damage, age and construction type. These relationships are referenced to maximum 3-second gust wind speed via wind swath maps. The data from this study was used to modify the residential component capacities as this model evolved. The final report from this study was submitted in the spring of 2006 to the Florida Building Commission.

Another source of field data is the aerial imagery collected after Hurricane Katrina. These images were used to validate the roof cover output from the physical damage model.

4. Describe the research used in the development of the model's vulnerability functions

The engineering team adopted a so-called component approach in the development of the vulnerability functions. Although a number of commercial loss projection models have been developed, only a handful of studies are available in the public domain to predict damage for hurricane prone areas. Boswell et al. (1999) attempted to predict the public costs of emergency management and recovery, without taking into account losses to individual homeowners. In 1985, Berke, et al., presented a computer system simulating economical and social losses caused by hurricane disasters, and a Vulnerability Assessment and Mapping System known as VAMS (Berk, Larsen and Ruch, 1984) enabled the user to consider various types of hurricanes with varying surge, wind pattern and point of landfall. This information is of some interest, but it is not directly applicable to residential construction in Florida.

Most studies for residential losses use post-disaster investigations (FEMA, 1993) or available claim data to fit damage versus wind speed vulnerability curves. For example, a relationship between home damage from insurance data and wind speed was proposed for Typhoons Mireille and Flo (Mitsuta et al. 1996). A study by Holmes (1996) presents the vulnerability curve for a fully engineered building with strength assumed to have lognormal distribution, but clearly indicates the need for more thorough post-disaster investigations to better define damage prediction models. A method for predicting the percentage of damage within an area as a function of wind speed and various other parameters was presented by Sill and Kozlowski (1997). The proposed method was intended to move away from curve fitting schemes, but its practical value is hampered by insufficient clarity and transparency. Huang et al. (2001) presented a risk assessment strategy based on an analytical expression for the vulnerability curve. The expression is obtained by regression techniques from insurance claim data for hurricane Andrew. Khanduri et al. (2003) also presented a similar method of assessment of vulnerability and a methodology to translate a known vulnerability curves from one region to another region. Although such approaches are simple, they are highly dependent on the type of construction and construction practices common to the areas represented in the claim data. Recent changes in building codes or construction practices cannot be adequately reflected by Huang et al.'s vulnerability curve. In addition, damage curves obtained by regression from observed data can be misleading, because very often, as was the case for hurricane Andrew, few reliable wind speed data are available. In addition, damage curves regressed from observed data do not adequately represent the influence of primary storm characteristics such as central pressure, forward velocity, radius of maximum wind, the amount of rain, duration, and other secondary parameters such as demand surge and preparedness.

In contrast, a component approach explicitly accounts for both the resistance capacity of the various building components and the load effects produced by wind events to predict damage at various wind speeds. In the component approach the resistance capacity of a building can be broken down into the resistance capacity of its components and the connections between them. Damage to the structure occurs when the load effects from wind or flying debris are greater than the component's capacity to resist them. Once the strength capacities, load demands, and load path(s) are identified and modeled, the vulnerability of a structure at various wind speeds can be estimated. Estimations are affected by uncertainties regarding on one hand the behavior and strength of the various components and, on the other, the load effects produced by hurricane winds. A hurricane wind damage prediction model that incorporates a time-stepping component approach was implemented for the FEMA HAZUS project (Lavelle et al., 2003).

5. ***Describe the number of categories of the different vulnerability functions. Specifically, include descriptions of the structure types, lines of business, and coverages in which a unique vulnerability functions is used.***

Vulnerability matrices were derived for both manufactured and site built homes.

Table C.1, in Appendix C of Volume III of the Engineering Team final report list the 216 vulnerability matrices developed for site built homes. They correspond to a combination of region (Keys, South, Central, or North), structural type (concrete masonry or wood frame), roof type (gable or hip), roof cover type (tile or shingle), opening protection (with or without shutters), number of stories (1 or 2) and location (wind borne debris region, high velocity hazard, or else).

These 216 matrices were then combined in 30 weighted matrices listed in table 5-4, of the same document. The detail of the weighted procedure is given in section 5.2, of Volume III.

The entire process for site built homes was repeated for weak, medium strength, and strong homes corresponding to homes built in different eras with different building codes, and different building code enforcement.

Four vulnerability matrices were developed for manufactured homes: pre-1994 tied down, pre-1994 not tied down, post 1992 zone 2, and post-1994 zone 3. The pre-1994 tied down and pre-1994 not tied down were then combined in a weighted pre-94 matrix. The detail of the weighted procedure is also given in section 5.2, of Volume III.

A contents matrix and an ALE matrix correspond to each structure vulnerability matrix.

Finally, one appurtenant structure vulnerability matrix was derived for all site-built homes, and one for all manufactured homes.

6. Identify the one-minute average sustained wind speed at which the model begins to estimate damage.

The wind speeds used in the damage model are 3-second gusts. The lowest 3-second gust is 50 mph. The minimum one-minute sustained wind is approximately 40 mph.

7. Describe how the duration of wind speeds at a particular location over the life of a hurricane is considered.

Duration of the storm is not explicitly modeled. The damage accumulation procedures assume sufficient duration of peak loads to account for duration dependent failures.

8. Provide a completed Form V-1, One Hypothetical Event.

See attached form, the results of which are plotted below for total damage (Figure 31) and building damage (Figure 32). The modelers do confirm that the structures used in completing the form are identical to those in the table provided in the Standard.

V-2 Mitigation Measures*

*(*Significant Revision due to new Audit language)*

A. Modeling of mitigation measures to improve a structure's wind resistance and the corresponding effects on vulnerability shall be theoretically sound. These measures shall include fixtures or construction techniques that enhance:

- ***Roof strength***
- ***Roof covering performance***
- ***Roof-to-wall strength***
- ***Wall-to-floor-to-foundation strength***
- ***Opening protection***
- ***Window, door, and skylight strength.***

- Modeling of mitigation measure to improve a structure's wind resistance is theoretically sound and includes the fixtures mentioned above. The following structures were modeled:
  - Base case as defined by Commission
  - Mitigated case as defined by Commission
  - Base plus one mitigation at a time

  The mitigations included gable bracing, rated shingles, stronger sheathing capacity, stronger roof to wall connections, stronger wall to sill connections, masonry reinforced walls, multiple opening protection options, and wind / missile resistant glass.

B. Application of mitigation measures shall be empirically justified both individually and in combination.

The base cases are very weak cases, where the interior damage is governed by the sheathing loss at low to moderate wind speeds. Application of mitigation measures are justified and the results show the following.

Bracing the gable end or using rated shingles alone does not provide any benefit in the context of weak sheathing connections. In other words, regardless of the type of roof cover used, if the home loses its sheathing panels, there will be no benefit in mitigating the roof cover or gable end alone. The observed negative values in form V-2 corresponding to the braced gable end mitigation are from round off of smaller values within the uncertainty scatter of the model, and indicate zero change.

The hip roof has a greater impact in reducing the losses, especially in the case of frame structures. Because the base frame structure is inherently weaker, there is comparatively a higher gain with the hip timber structure than with the hip masonry structure.

Improving the roof sheathing capacity (8d nails) alone reduces the damage at wind speeds up to 130 and 150 mph gusts for wood and masonry structures, respectively, but at higher wind speeds the mitigation becomes counter effective (Figure 33 and Figure 34). The behavior of the damage curve with mitigated sheathing after 130 (wood) and 150 (masonry) mph gusts is due to the still very weak roof to wall connections. Loss of sheathing reduces the uplift on the roof to wall connections. Thus the stronger deck results in higher loads on the connections, which they are not prepared to absorb.

Clips and straps are very effective for frame structures, less so for masonry structures. The model puts a lot of emphasis on interior damage due to loss of sheathing, roof cover or gable end, which are all independent of the roof to wall connection strength. So, if the strength of the plywood deck and roof cover are not increased, increasing the roof to wall connections alone will do little good at low to moderate wind speeds. At higher wind speeds, the integrity of the box system in the frame structure is improved by the stronger connection. Hence, a more pronounced benefit than for masonry.

Clips and straps for wall to sill plate are very effective at high wind speeds for frame structures. They improve the integrity of the box system. Similarly the reinforcing of the walls for masonry structures is more effective at high wind speeds.

Opening protections are effective, and more so at higher wind speeds.

As expected, a mitigated structure with a combination of individual mitigations (as per standards definition) shows improved performance over the base structure and each of the individual mitigations.

The non-zero damage between 50 and 75 mph gusts, and the convergence of the base and all mitigation cases in this wind speed range, reflects the incorporation of non-exterior damage related losses in the model. Water penetration through windows and doors is possible even without window or door breach. This portion of the model is not dependent upon mitigations, thus the convergence of curves in Figure 33 & Figure 34 in that wind speed range.

Disclosures

1. Provide a completed Form V-2, Mitigation Measures – Range of Changes in Damage.

See V2

2. Provide a description of the mitigation measures used by the model that are not listed in Form V-2.

See V3

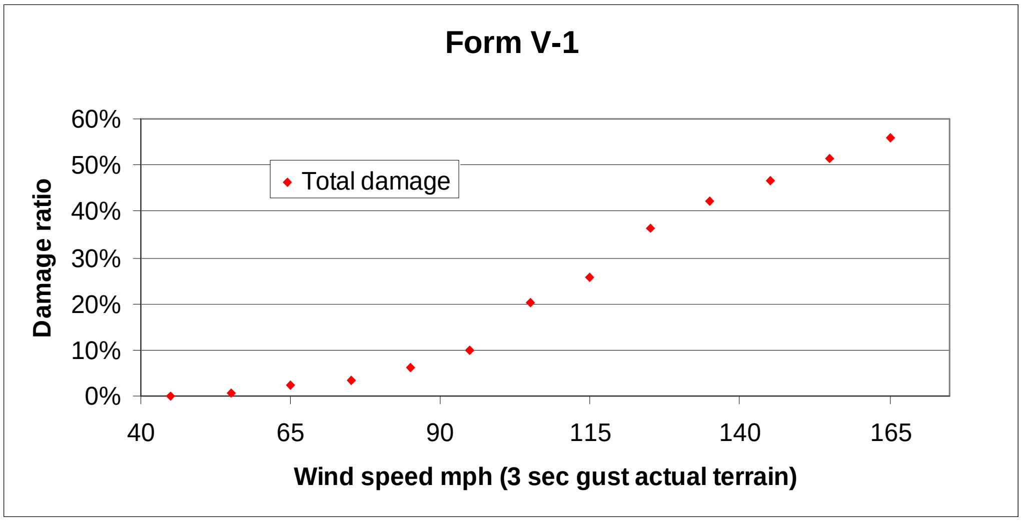


Figure 31. Total damage vs. wind speed

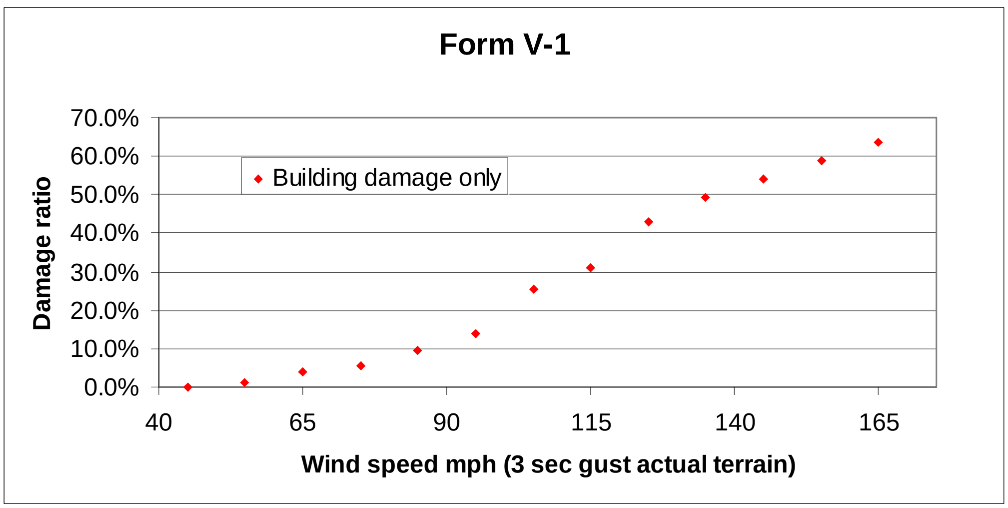


Figure 32. Building damage vs. wind speed

Form V-1: One Hypothetical Event

Part A

Wind Speed (mph) 3 Sec Gust Wind	Estimated Damage/ Subject Exposure
41-50	0.00%
51-60	0.75%
61-70	2.35%
71-80	3.48%
81-90	6.24%
91-100	10.01%
101-110	20.33%
111-120	25.66%
121-130	36.36%
131-140	42.25%
141-150	46.66%
151-160	51.43%
161-170	55.83%

Part B

Construction Type	Estimated Damage/ Subject Exposure
Wood Frame	3.41%
Masonry	2.66%
Mobile Home	7.99%

The structures used in completing the form are identical to those in the table provided.

Form V-2: Mitigation Measures – Range of Changes in Damage

INDIVIDUAL MITIGATION MEASURES			PERCENTAGE CHANGES IN DAMAGE (REFERENCE DAMAGE RATE - MITIGATED DAMAGE RATE)/(REFERENCE DAMAGE RATE)*100									
			FRAME STRUCTURE					**MASONRY STRUCTURE**				
			WIND SPEED (MPH)					**WIND SPEED (MPH)**				
			60	**85**	**110**	**135**	**160**	**60**	**85**	**110**	**135**	**160**
	REFERENCE STRUCTURE		-	-	-	-	-	-	-	-	-	-
ROOF STRENGTH	**BRACED GABLE ENDS**		0%	1%	-2%	0%	0%	0%	0%	-1%	-1%	0%
	HIP ROOF		1%	3%	12%	14%	18%	1%	2%	8%	3%	7%
ROOF COVERING	**RATED SHINGLES (110 MPH)**		0%	0%	0%	0%	0%	0%	1%	1%	0%	0%
	MEMBRANE											
	NAILING OF DECK 8d		-1%	8%	33%	6%	-8%	1%	8%	38%	17%	-6%
ROOF-WALL STRENGTH	**CLIPS**		0%	0%	4%	13%	20%	1%	0%	1%	1%	6%
	STRAPS		0%	1%	5%	16%	25%	0%	0%	0%	1%	7%
WALL-FLOOR STRENGTH	**TIES OR CLIPS**		0%	0%	0%	8%	7%					
	STRAPS		0%	1%	0%	9%	12%					
WALL FOUNDATION STRENGTH	**LARGER ANCHORS OR CLOSER SPACING**							-	-	-	-	-
	STRAPS							-	-	-	-	-
	VERTICAL REINFORCING		-	-	-	-	-	1%	0%	-2%	0%	4%
OPENING PROTECTION	WINDOW SHUTTERS	PLYWOOD	0%	0%	1%	5%	3%	0%	0%	2%	6%	5%
		STEEL	1%	1%	2%	9%	5%	1%	0%	3%	9%	7%
		ENGINEERED	-1%	0%	3%	11%	7%	0%	0%	3%	13%	10%
	DOOR AND SKYLIGHT COVERS		0%	0%	0%	0%	0%	0%	0%	1%	0%	1%
WINDOW DOOR, SKYLIGHT STRENGTH	WINDOWS	LAMINATED	0%	1%	1%	9%	6%	0%	0%	2%	9%	9%
		IMPACT GLASS	0%	0%	2%	9%	8%	0%	-1%	4%	10%	11%

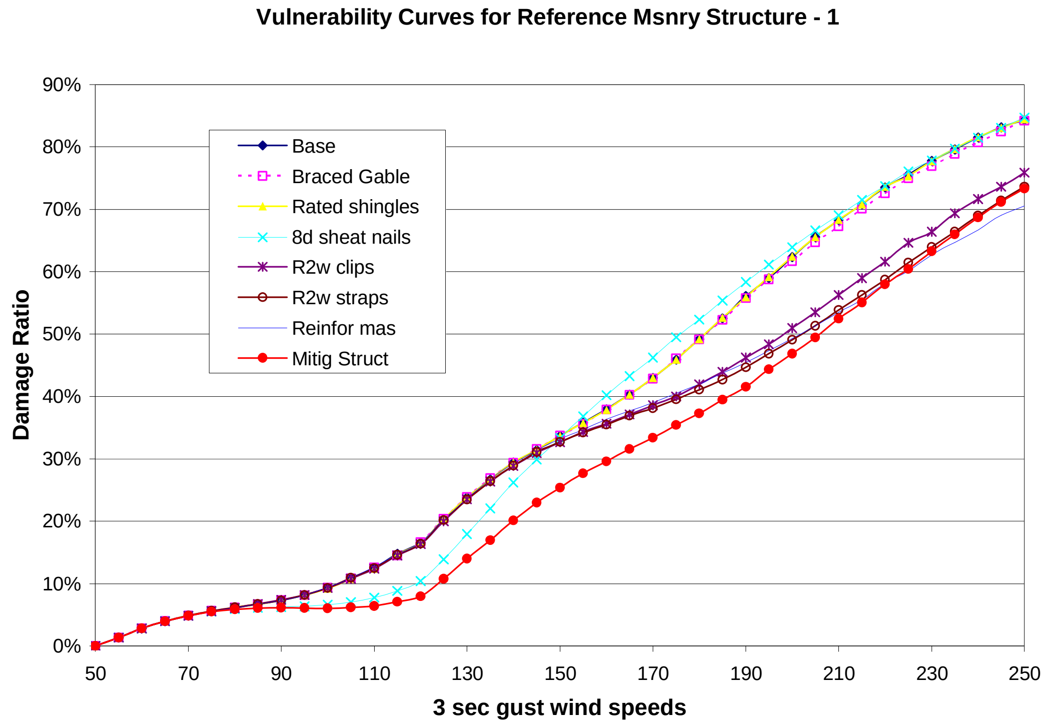
MITIGATION MEASURES IN COMBINATION		PERCENTAGE CHANGES IN DAMAGE (REFERENCE DAMAGE RATE - MITIGATED DAMAGE RATE)/(REFERENCE DAMAGE RATE)*100									
		FRAME STRUCTURE					**MASONRY STRUCTURE**				
		WIND SPEED (MPH)					**WIND SPEED (MPH)**				
		60	**85**	**110**	**135**	**160**	**60**	**85**	**110**	**135**	**160**
STRUCTURE	MITIGATED STRUCTURE	0%	9%	51%	43%	37%	1%	9%	49%	36%	22%

Form V-3: Mitigation Measures – Mean Damage Ratio
Trade Secret List Item

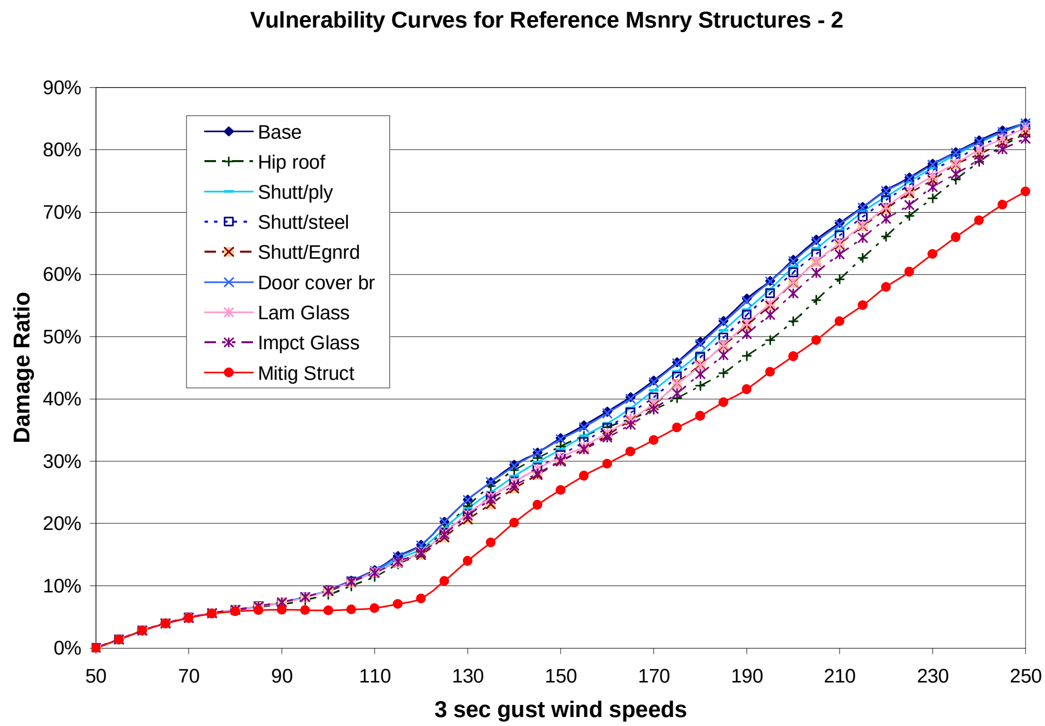
INDIVIDUAL MITIGATION MEASURES			MEAN DAMAGE RATIO									
			FRAME STRUCTURE					MASONRY STRUCTURE				
			WIND SPEED (MPH)					WIND SPEED (MPH)				
			60	85	110	135	160	60	85	110	135	160
	REFERENCE STRUCTURE		**3%**	**7%**	**14%**	**33%**	**51%**	**3%**	**7%**	**13%**	**27%**	**38%**
ROOF STRENG TH	BRACED GABLE ENDS		3%	7%	14%	33%	51%	3%	7%	13%	27%	38%
	HIP ROOF		3%	7%	12%	29%	42%	3%	7%	11%	26%	35%
ROOF COVERING	RATED SHINGLES (110 MPH)		3%	7%	14%	33%	51%	3%	7%	12%	27%	38%
	MEMBRANE											
	NAILING OF DECK 8d		3%	6%	9%	31%	55%	3%	6%	8%	22%	40%
ROOF-WALL STRENGT H	CLIPS		3%	7%	13%	29%	41%	3%	7%	12%	26%	36%
	STRAPS		3%	7%	13%	28%	38%	3%	7%	12%	26%	35%
WALL-FLOOR STRENGTH	TIES OR CLIPS		3%	7%	14%	31%	48%					
	STRAPS		3%	7%	14%	30%	45%					
WALL FOUNDATION STRENGTH	LARGER ANCHORS OR CLOSER SPACING							-	-	-	-	-
	STRAPS							-	-	-	-	-
	VERTICAL REINFORCING		-	-	-	-	-	3%	7%	13%	27%	36%
OPENING PROTECTION	WINDOW SHUTTERS	PLYWOOD	3%	7%	14%	32%	50%	3%	7%	12%	25%	36%
		STEEL	3%	7%	14%	30%	49%	3%	7%	12%	24%	35%
		ENGINEERED	3%	7%	14%	30%	48%	3%	7%	12%	23%	34%
	DOOR AND SKYLIGHT COVERS		3%	7%	14%	33%	51%	3%	7%	12%	27%	38%
WINDOW DOOR, SKYLIGHT STRENGTH	WINDOWS	LAMINATED	3%	7%	14%	31%	48%	3%	7%	12%	24%	35%
		IMPACT GLASS	3%	7%	14%	30%	47%	3%	7%	12%	24%	34%

MITIGATION MEASURES IN COMBINATION		MEAN DAMAGE RATIO									
		FRAME STRUCTURE					MASONRY STRUCTURE				
		WIND SPEED (MPH)					WIND SPEED (MPH)				
		60	85	110	135	160	60	85	110	135	160
STRUC TURE	MITIGATED STRUCTURE	3%	6%	7%	19%	32%	3%	6%	6%	17%	30%

Graphical Representation

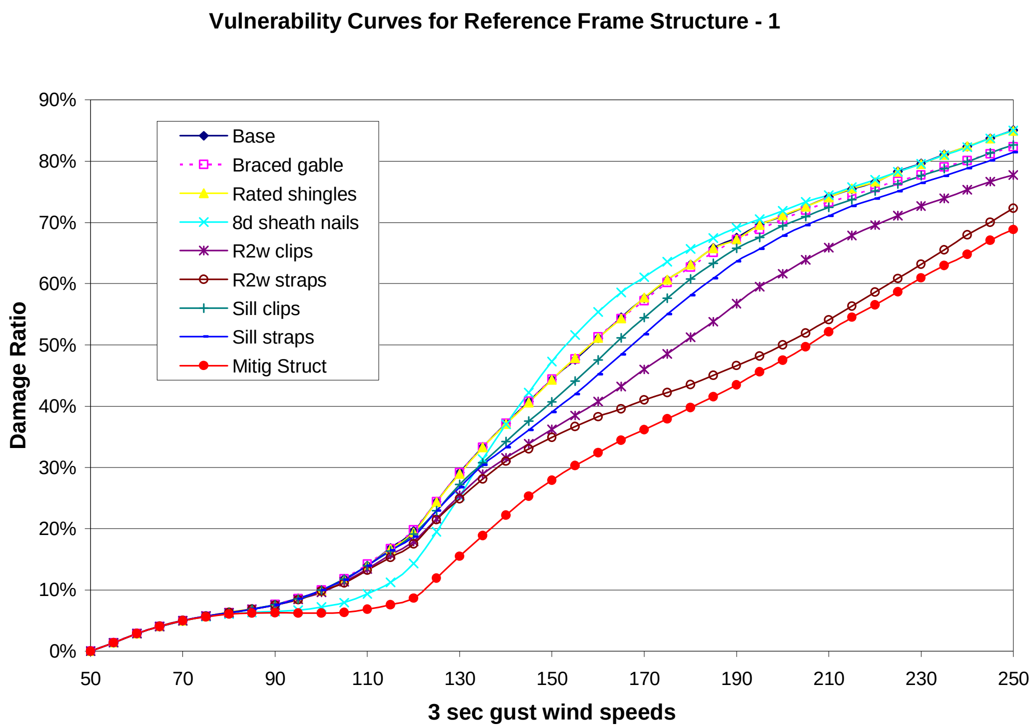


(a)

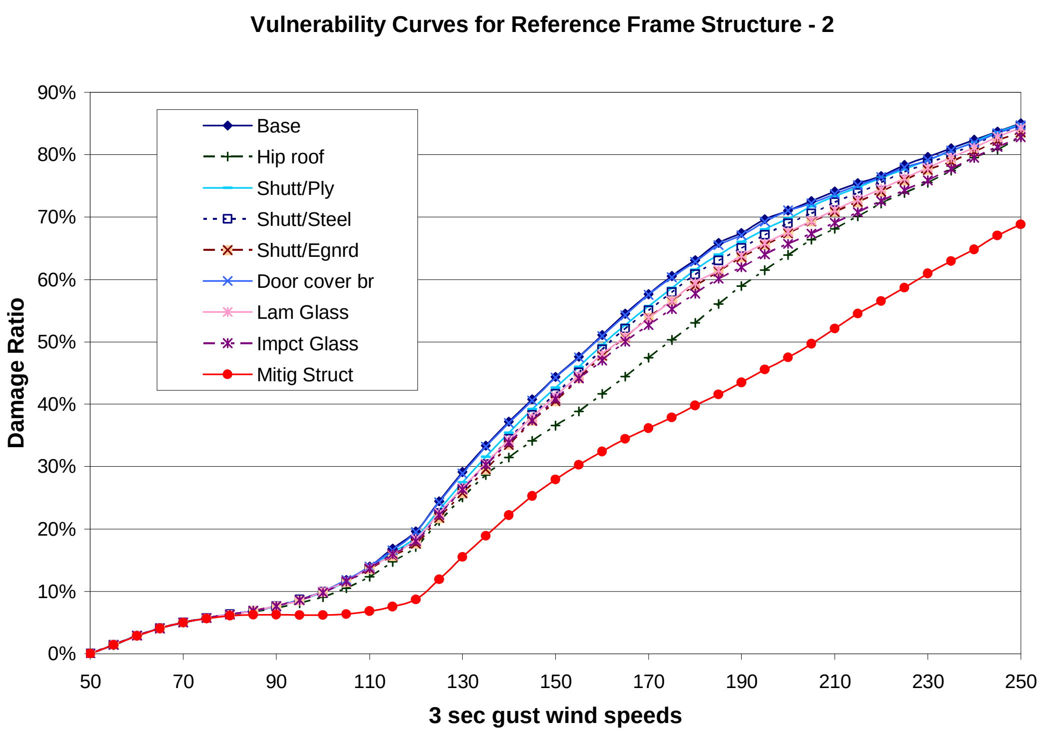


(b)

Figure 33. Mitigation measures for masonry homes



(a)



(b)

Figure 34. Mitigation measures for frame homes

ACTUARIAL STANDARDS

A-1 Modeled Loss Costs

Modeled loss costs shall reflect all damages from storms that reach hurricane strength and produce minimum damaging wind speeds or greater on land in Florida.

Modeled loss costs are computed for all hurricanes that affect the State of Florida. Damages are computed for affected land areas in which wind speeds exceed a minimum level.

Disclosure

1. ***Describe how damage from model generated storms (land falling and by-passing) is excluded or included in the calculation of loss costs for the state of Florida.***

Damages are computed for all Florida land falling and certain bypassing storms in the stochastic set that attain hurricane level wind speeds. The following bypassing hurricanes are included:

- Non-land falling hurricanes in regions A, B, C, D, E or F with open terrain winds greater than 30 mph in at least one Florida zip code.
- Land falling hurricanes in regions E or F with open terrain winds greater than 30 mph in at least one Florida zip code.

The Actuaries checked a sample of bypassing storms from the stochastic set to see if they were correctly included or excluded. From the file for each storm they could see the wind speed by zip code for each day and hour of the storm. The storms they selected from the excluded set either had no Florida zip codes impacted, or had Florida zip codes with very low wind speeds. The included storms selected all had one or more Florida zip codes with winds over 30 mph.

A-2 Underwriting Assumptions

A. When used in the modeling process or for verification purposes, adjustments, edits, inclusions, or deletions to insurance company input data used by the modeler shall be based upon accepted actuarial, underwriting, and statistical procedures.

Input data from insurance companies, used for development or validation, were requested and provided in a standardized format. Any adjustments, edits, inclusions or deletions are based upon accepted actuarial, underwriting, and statistical procedures.

Exposure and claim data used in the validation process were collected via a data call issued by the Florida Office of Insurance Regulation. In the case of the 2004 hurricane, the data call requested policies in force on any of four specific dates in 2004 (i.e. the landfall dates for Frances, Charley, Ivan and Jeanne), and any associated wind claims occurring on those dates. Since the four storms occurred so closely together, the OIR determined there was no need for companies to supply four separate in force files. Several companies supplied separate in force files for each date anyway, but most companies sent the one in force file requested.

All of the data files received were edited for:

- duplicate records
- valid entries in each field.

<u>Deletions:</u>

A few duplicate records were found and deleted. In the review process, the Actuaries located and examined several sets of records where a duplicate had been purged from the original data set. These were cases where the policy number and all policy level characteristics were identical. In the process of reviewing these policies, they noted that there did appear to be some policies with legitimate multiple dwellings related to the same policy number, i.e. dwellings with different construction years, coverage A amount of insurance, etc. Therefore it's possible that some or all of the "duplicates" dropped were not actually duplicates, but a second dwelling with the same policy number.

Policies (and any accompanying claims) with invalid Florida zip codes were also deleted. The Actuaries examined the invalid zip codes found in the Company D data set. They sampled among the deleted zip codes, especially those with multiple policies reported, and checked against their own list of valid Florida zips to ascertain that they were indeed invalid. For example, only .05% of Company D records and .8% of Company A records were dropped due to invalid zip code. The dropped record count for other companies was reportedly similar to Companies A and D.

Policies excluding wind were dropped. These were reported by two companies even though the data call requested only policies including wind coverage. Such policies were identified by "Ex Wind" or similar identifiers in the hurricane deductible field.

Adjustments

The construction categories and deductible categories reported by the individual companies were mapped to those of the model. The engineers determined how company construction categories should be mapped. The Actuaries examined the mappings of a sample of policies to verify that they were executed as planned.

Percentage deductibles were converted to dollar amounts by multiplying by the structure amount of insurance. The Actuaries examined a sample of these conversions.

Companies B and D did not provide limits for Additional Living Expense in their in force files. Company B subsequently recommended 30% of structure amount of insurance as a reasonable estimate of the limit. For Company D a limit of 10% of structure amount of insurance was selected. This selection was later verified as reasonable based on exposure data submitted with a 2006 Company D rate filing. In that filing the average ALE limit reported by the company was 10.5%. The Actuaries reviewed the correspondence with Company B, and verified the ratio of ALE limit to structure limit from the 2005 Company D rate filing data file.

The edits, deletions and adjustments described above relate to the validation data. The same approach, though, is used with exposures provided by companies in conjunction with rate filings pending with the OIR.

B. For loss cost estimates derived from or validated with historical insured hurricane losses, the assumptions in the derivations concerning (1) construction characteristics, (2) policy provisions, (3) claim payment practices, and (4) relevant underwriting practices underlying those losses, as well as any actuarial modifications, shall be appropriate.

The damages calculated by the model, that subsequently flow into the loss costs, depend on the following characteristics of each exposure:

- Region/Sub-region and zip code
- Construction type (Masonry, Frame, Mobile Home, Other)
- Year of Construction
- Coverages (e.g. contents only or full package homeowners)
- Deductible
- Limits by coverage.

The following assumptions are implicit in the design of the model:

- Each structure can be appropriately categorized as either Masonry, Frame, Mobile Home or Other.
- Within construction types, the relative strength of an exposure can be approximated by the year of construction.
- The values of structures, contents and appurtenant structures are each equal to their policy limit.
- There is no difference in loss under Actual Cash Value or Replacement Cost coverage. (The damage model is calibrated to a mix of some ACV and mostly RC.)
- Claim practices are stable and do not vary by company.
- A company's underwriting practices relating to any other risk characteristic not considered in the model (i.e. those listed above) will not impact hurricane damages.
- The impact on losses of roof type, shutters and other risk characteristics not yet widely available from insurance companies can be approximated using weighted damage matrices.

In responding to this standard the Actuaries reviewed model flow charts, manual calculations of losses for specific policies, and sample vulnerability matrices.

Disclosures

1. ***Identify the assumptions used to develop loss costs for unknown residential construction types.***

The unknown matrix is called "other" matrix in our documents and programs. Loss costs for unknown construction types are estimated using vulnerability matrices specifically developed for unknown construction types. These are weighted average of the various vulnerability matrices developed for a given region. The weights depend on the prevailing proportions of various construction types in the region. The proportions were estimated from survey data provided by various counties and policy data provided by insurance companies. Vulnerability matrices for Mobiles homes are not used.

2. ***Describe how the modeled loss costs take into consideration storm surge and flood damage to the infrastructure.***

The modeled loss costs do not contain provision for storm surge losses. There is certainly a chance that some storm surge claims were paid or partially paid under wind coverage in the validation data, and therefore influenced the damage matrices to some extent. However, we specifically excluded Ivan data from the validation process due to suspected storm surge contamination, and focused on Frances and Charley claims which the meteorologists felt were less likely to be contaminated.

There is also no specific provision for "ALE only" claims that are due to storm surge damage to the infrastructure with no insured damage to the insured property. To the extent "ALE only" claims were present in the validation data, the calibration of the damage model will have allowed for such claims. Thus, the model does not distinguish explicitly between direct and indirect loss to the structure, but the function is calibrated against claim data that includes both types of losses.

3. ***Describe the assumptions included in model development and validation concerning insurance company claim payment practices.***

The implicit assumption is that such practices are stable over time. An option is available that converts any damages over 50% to 100% damage under the assumption that claim adjusters may declare a dwelling uninhabitable. This option is not used in the development or validation of the model. Analysis indicates that activating this option will lead to only slight increase in loss costs.

Computer code showing that this option is turned off in the production of Commission loss costs can be provided by the Computer Science team.

4. ***Identify depreciation assumptions and describe the methods and assumptions used to reduce insured losses on account of depreciation. Provide a sample calculation for determining the amount of depreciation and the actual cash value (ACV) losses.***

For both replacement cost and ACV policies the value of structures and contents are generally assumed to equal the insured limit. In the rare case where data on property value is available and it exceeds the limit, the value is used to estimate the ground-up damages. Depreciation is considered in the model, but not explicitly. The damage ratios applied to those values, however, were calibrated to insured losses that contained a mix of mostly replacement cost and some ACV coverages. Consequently there is an implicit allowance for depreciation (of an unknown degree) built into the modeled losses.

5. ***Identify property value assumptions and describe the methods and assumptions used to determine the true property value and associated losses. Provide a sample calculation for determining the property value and guaranteed replacement cost losses.***

The model assumes that the insured value is the true value of the property.

6. ***Describe how loss adjustment expenses are considered within the loss cost estimates.***

Loss adjustment expenses are not included in estimates of loss costs. The loss data used for validation do not include loss adjustment expenses. The OIR data call required losses excluding LAE.

A-3 Loss Cost Projections*

*(*Significant Revision)*

A. Loss cost projections produced by hurricane loss projection models shall not include expenses, risk load, investment income, premium reserves, taxes, assessments, or profit margin.

Loss cost estimates do not include expenses, risk loads, investment income, premium reserves, taxes, assessments, or profit margins. The model produces pure loss costs.

B. Loss cost projections shall not make a prospective provision for economic inflation.

Loss cost estimates do not consider economic inflation.

Disclosures

1. Describe the method or methods used to estimate annual loss costs needed for ratemaking. Identify any source documents used and research performed.

Expected annual losses are estimated for individual policies in the portfolio. They are estimated for structure, appurtenant structure, contents and ALE based on their exposures and by using the respective vulnerability matrices for the construction types. There are two methods available for estimating expected losses that theoretically produce the same results. In the first method, for each policy, losses are estimated for all the hurricanes in the stochastic set by using appropriate damage matrices and policy exposure data. The losses are then summed over all hurricanes and divided by the number of years in the simulation to get the annual expected loss. These are aggregated at the zip code, county, territory, or portfolio level and then divided by the respective level of aggregated exposure to get the loss costs. This is a computationally demanding method.

The second method derives the probability distribution of winds for each zip code from the simulated set of hurricanes. These distributions are then applied directly to the damage (vulnerability) matrices, and using the insured value and deductible, the expected losses are estimated for each policy. These are then aggregated as needed.

The distribution of losses is driven by both the distribution of damage ratios generated by the engineering component and by the distribution of wind speeds generated by the meteorology component. The engineering group has produced vulnerability matrices. Damage ratios are grouped and intervals (or classes) of various length are used. Furthermore, damages probabilities for damage intervals are produced for a whole range of wind speeds. Vulnerability matrices are provided for building structure, contents, appurtenant structures and additional living expenses for a variety of residential construction types and for policy types.

To generate expected loss the model starts with a given set of exposure, determine their zip codes and construction types and extract relevant meteorology, engineering and insurance data. The starting point for the computations is the damage matrix with its set of damage intervals and associated probabilities. For a given a wind speed, for each of the mid point of the damage intervals the ground up loss is computed, deductibles and limits are applied, and the loss net of deductible is calculated. Care is taken to ensure that net of deductible losses are non-negative. The net loss is multiplied by the probability in the corresponding cell to get the expected loss for the given damage ratio. The results are then averaged across the possible damages for the given wind speed. Next, the wind probability weighted loss is calculated to produce the expected loss for the property. The expected losses are then adjusted by the appropriate expected demand surge factor. The expected losses can be summed across all structures of the type in the zip code and also across zip codes to get expected aggregate loss. The losses can also be aggregated by policy form, counties, rating territories etc.

The following sources were used in the research:

Hogg and Klugman, *Loss Distribution*, 1984, particularly Ch. 4 and 5 and the appendix,

Klugman, Panjer and Willmot, *Loss Models*, 1998

Foundations of Casualty Actuarial Sciences, 4th edition, 2001, Casualty Actuarial Society.

2. ***Identify the highest level of resolution for which loss costs can be provided. Identify the resolution used for the reported output ranges.***

Loss costs can be provided at individual policy level or for the portfolio, by zip code, by county, by region, by rating territory or statewide. The output ranges are estimated at zip code level.

A-4 Demand Surge

A. Demand surge shall be included in the model's calculation of loss costs.

Demand surge is included in the calculation of loss costs.

B. The methods, data, and assumptions used in the estimation of demand surge shall be actuarially sound.

The method, data, and assumptions used in the estimation of demand surge are actuarially sound.

Disclosures

1. Describe how the model incorporates demand surge in the calculation of loss costs.

How Demand Surge is Incorporated in Loss Cost Calculation

Weighted average demand surge factors across the stochastic set of storms are applied to the modeled losses. There are factors by coverage for each of five regions. The regions are:

- Northeast / North Central
- Northwest
- Central
- South (except Monroe County)
- Monroe County

For each storm in the stochastic set demand surge is assumed to be a function of coverage, region and the storm's estimated statewide losses before consideration of demand surge.

General Form of the Demand Surge Functions

The functions applied to determine the demand surge for each storm are of the form:

Structure: Surge Factor = c + p1 x ln (statewide storm losses) + p2,
where c is a constant
p2 varies by region (North (combined Northeast / North Central, and Northwest), Central, South (except Monroe), Monroe)
p1 is a constant for all regions except Monroe County,
"statewide storm losses" are the estimated losses, before demand surge, for the storm under consideration.

Appurtenant Structures: Surge Factor = Structural Factor.

Contents: Surge Factor = [(Structural Factor – 1) x 30%] + 1.

Additional Living Expenses: Surge Factor = 1.5 x Structural Factor - .5.

Development of the Structural Demand Surge Function

To estimate the impact of demand surge on the settlement cost of structural claims following a hurricane we used a quarterly construction cost index produced by ***Marshall & Swift/Boeckh***. We considered the history of the index from first quarter 1992 through second quarter 2007. There is an index for each of 52 zip codes in Florida with forty-two counties represented. We grouped the indices to produce a set of regional indices, weighting each zip code index with population.

The approach to estimating structural demand surge was to examine the index for specific regions impacted by one or more hurricanes since 1992. From the history of the index we projected what the index would have been in the period following the storm had no storm occurred. Any gap between the predicted and actual index was assumed to be due to demand surge. In total we examined ten storm/region combinations. From these ten observations of structural demand surge we generalized to the functional relationship shown above.

Monroe County was treated as an exception. There were no storms of any severity striking Monroe during the time period of our observations. We believe, though, that the location of and limited access to the Keys will result in an unusually high surge in reconstruction costs after a storm, particularly since the Overseas Highway could be damaged by storm surge. We have therefore judgmentally selected surge parameters for Monroe in excess of those indicated for the remainder of South Florida.

Development of the Contents Demand Surge Function

The approach to determining the contents demand surge function was to relate any surge in consumer prices in Southeast Florida following hurricanes Katrina and Wilma to the estimated structural demand surge following those storms. We used the Miami-Ft. Lauderdale Consumer Price Index for this purpose, and compared the projected and actual index after the storms. Since the surge in consumer prices was roughly 30% of the surge in construction costs, we selected that percentage as the relationship between structural and contents demand surge.

Development of Additional Living Expense (ALE) Demand Surge Function

To estimate ALE demand surge we first examined the relationship between structural losses and ALE losses in the validation data set. This data set includes losses from three storms (Andrew, Charley and Frances) and eleven insurance companies. We then compared the predicted increase in ALE losses associated with various increases in structural losses. That generalized relationship is the ALE demand surge function shown above.

ALE demand surge is related to structural demand surge in following sense: Structural surge is caused by an inability of the local construction industry to meet the sudden demand for materials and labor following a storm. A high surge in construction costs suggests a more serious mismatch between the demand for repairs and the supply of materials and labor. This mismatch translates into longer delays in the completion of repairs and rebuilding, which in turn implies a higher surge in ALE costs.

Because ALE surge is determined as a function of structural surge, Monroe County ALE surge factors are higher than those for the remainder of South Florida. We believe this is reasonable because of the unusual delays in repair/rebuilding that will occur following a major storm in the Keys, especially if there is storm surge damage to US 1 or to bridges connecting the islands.

Treatment of Demand Surge for Storms Impacting both the Florida Panhandle and Alabama

The Northwest region is segregated from the remainder of the North to allow for demand surge that is a function of combined Florida/Alabama losses from storms impacting both states. The Northwest region consists of all Panhandle counties west of Leon and Wakulla. The definition of this region was selected by considering which counties experienced losses from Ivan, Frederic and Elena, i.e. from storms that impacted both states. Not all counties in the Northwest region experienced losses from these three specific storms, but losses in neighboring counties suggest that that they are nevertheless at risk for inclusion in a combined Florida/Alabama event.

Demand surge factors for the Northwest region are determined as an upward adjustment to the factors for the Northeast/North Central region. The purpose of this adjustment is to correct for an understatement of demand surge that occurs when only the Florida losses from a combined Florida/Alabama event are used to determine the level of demand surge from a storm.

A-5 User Inputs

All modifications, adjustments, assumptions, and defaults necessary to use the inputs in the model shall be actuarially sound and included with the model output. Treatment of missing values for user inputs required to run the model shall be actuarially sound and described with the model output.

The insurance companies provide policy data in a standardized format. The input format description is available for audit. If observations on the input variables are missing, the provider is often solicited for the information and a determination is made if the data has zero value or is missing. If the data on many key variables are missing the record is dropped from the analysis, otherwise appropriate assumptions are made to retain the record. If, for example, the year built is missing, then weighted average damage matrices are used, with the weights determined by the policy location and construction type. The insured limit is assumed to be the value of the property, and therefore no adjustments are made to the exposure data for building structure, appurtenant structure, contents or additional living expense. In the rare case, when property value data is available and it exceeds the limit, the value is used to calculate the ground-up damage. If limit on ALE is time based and no exposure is provided for ALE, then depending on the policy type, ALE is assumed to be a percentage of either the structure or content coverage for one year. No loss costs are reported for zip codes that are not in the geo-coded set. The number of records deleted and adjustments to the data set are documented.

Disclosures

1. ***Describe the methods used to distinguish among policy form types (e.g., homeowners, dwelling property, mobile home, tenants, condo unit owners).***

The client provides the data on exposure by coverage type, and identifies construction type, policy form, rating territory etc. The model can process any combination of policy type, construction type, deductibles, coverage limits etc. The client is assumed to provide the correct data, though outliers may be investigated. The model output reports include separate loss estimates for structure, content, appurtenant structure, and ALE. These losses are also reported by construction type (e.g. masonry, frame, manufactured homes), by county or zip code, by policy form (e.g., HO-3, HO-4 etc.), by rating territory, and combinations thereof.

2. ***Disclose, in a model output report, the specific type of input that is required to use the model or model output in a personal residential property insurance rate filing. Such input includes, but is not limited to, optional features of the model, type of data to be supplied by the model user and needed to derive loss projections from the model, and any variables that a model user is authorized to set in implementing the model. Include the model name and version number on the model output report. All items included in the output form submitted to the Commission should be clearly labeled and defined.***

Table 14. Output report for OIR data processing

Output Report for OIR Data Processing

Florida Public Hurricane Loss Model: Release 2.6

OIR Data Processing Results: <Company Name: OIR Filing Number>

Report Content:
- Original Number of the policies in data set
- Process steps to formalize the data set
- Numbers of policies which are excluded due to certain reason, e.g. invalid zipcodes, invalid format, etc.
- Numbers of: Construction Types, Territory Codes, Policy Forms, Program Codes, etc.
- Number of policies to generate the estimated losses
- Number of files in the final results

The results are aggregated by different combinations upon counties, zipcodes, policy forms, program codes, and territory codes.

In case if there are:
- more than 1 construction type
- more than 1 policy forms
- more than 1 program codes
- more than 1 territory codes

There will be 47 files in the final results with names as below:

<CompanyName>_PILM_Loss_ConstType.xls
<CompanyName>_PILM_Loss_County.xls
<CompanyName>_PILM_Loss_PolicyForm.xls
<CompanyName>_PILM_Loss_ProgramCode.xls
<CompanyName>_PILM_Loss_TerritoryCode.xls
<CompanyName>_PILM_Loss_Zipcode.xls

<CompanyName>_PILM_Loss_ConstType_PolicyForm.xls
<CompanyName>_PILM_Loss_ConstType_ProgramCode.xls
<CompanyName>_PILM_Loss_ConstType_TerritoryCode.xls
<CompanyName>_PILM_Loss_County_ConstType.xls
<CompanyName>_PILM_Loss_County_PolicyForm.xls
<CompanyName>_PILM_Loss_Zipcode_ConstType.xls
<CompanyName>_PILM_Loss_County_ProgramCode.xls
<CompanyName>_PILM_Loss_County_TerritoryCode.xls
<CompanyName>_PILM_Loss_Zipcode_PolicyForm.xls
<CompanyName>_PILM_Loss_PolicyForm_ProgramCode.xls
<CompanyName>_PILM_Loss_PolicyForm_TerritoryCode.xls
<CompanyName>_PILM_Loss_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_Zipcode_ProgramCode.xls
<CompanyName>_PILM_Loss_Zipcode_TerritoryCode.xls
<CompanyName>_PILM_Loss_ConstType_PolicyForm_ProgramCode.xls
<CompanyName>_PILM_Loss_ConstType_PolicyForm_TerritoryCode.xls
<CompanyName>_PILM_Loss_ConstType_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_County_ConstType_PolicyForm.xls
<CompanyName>_PILM_Loss_County_ConstType_ProgramCode.xls
<CompanyName>_PILM_Loss_County_ConstType_TerritoryCode.xls
<CompanyName>_PILM_Loss_County_PolicyForm_ProgramCode.xls
<CompanyName>_PILM_Loss_County_PolicyForm_TerritoryCode.xls
<CompanyName>_PILM_Loss_County_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_Zipcode_ConstType_PolicyForm.xls
<CompanyName>_PILM_Loss_Zipcode_ConstType_ProgramCode.xls
<CompanyName>_PILM_Loss_Zipcode_ConstType_TerritoryCode.xls
<CompanyName>_PILM_Loss_Zipcode_PolicyForm_ProgramCode.xls
<CompanyName>_PILM_Loss_Zipcode_PolicyForm_TerritoryCode.xls
<CompanyName>_PILM_Loss_Zipcode_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_ConstType_PolicyForm_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_County_ConstType_PolicyForm_ProgramCode.xls
<CompanyName>_PILM_Loss_County_ConstType_PolicyForm_TerritoryCode.xls
<CompanyName>_PILM_Loss_County_ConstType_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_County_PolicyForm_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_Zipcode_ConstType_PolicyForm_ProgramCode.xls
<CompanyName>_PILM_Loss_Zipcode_ConstType_PolicyForm_TerritoryCode.xls
<CompanyName>_PILM_Loss_Zipcode_ConstType_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_PolicyForm_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_Zipcode_PolicyForm_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_County_ConstType_PolicyForm_TerritoryCode_ProgramCode.xls
<CompanyName>_PILM_Loss_Zipcode_ConstType_PolicyForm_TerritoryCode_ProgramCode.xls

The final results are zipped and protected by using password

Note: PILM is Probabilistic Insured Loss Model

Provide a copy of the input form used by a model user to provide input criteria to be used in the model. The modeler should demonstrate that the input form relates directly to the model output. Include the model name and version number on the input form. All items included in the input form submitted to the Commission should be clearly labeled and defined.

Table 15. Input form for Florida Public Hurricane Loss Model

Florida Public Hurricane Loss Model   Version 2.6

The portfolios should be saved in .txt files with the following format:

PolicyID,Zipcode,YearBuilt,ConstructionType,PropertyValue,StructureCoverage,AppCoverage,
ContentCoverage,ALECoverage,Deductible,HurricaneDeductible,NatureOfCoverage,County

1. Attribute Explanation:

PolicyID:	the unique ID for this certain portfolio
Zipcode:	5-digit zipcode where this certain property belongs
YearBuilt:	4-digit year number when this property was built
ConstructionType:	the construction type for this certain property, which is with one of the following four types: *Frame*, *Masonry*, *Manufactured*, or *Other*
PropertyValue:	the dollar amount value for this certain property
StructureCoverage:	the structure coverage amount in dollars
AppCoverage:	the appurtenant coverage amount in dollars
ContentCoverage:	the content coverage amount in dollars
ALECoverage:	the ALE coverage amount in dollars
Deductible:	deductible amount in dollars for other types of losses
HurricaneDeductible:	hurricane deductible amount in dollars
NatureOfCoverage:	using one letter *R* or *A* to represent Replacement Cost or Actual Cash Value, respectively
County:	the name of the county where the property belongs

Note the attributes should be separated by comma only

2. Examples
1,33143,1977,Masonry,162000,162000,16200,124000,0,0,250,R,Miami-Dade

Note:
The company may provide more columns, e.g. **Policy Form**, **Program Code**, **and Territory Code.**

3. Describe actions performed to ensure the validity of insurer data used for model inputs or validation/verification.

We developed a set of programs to check and validate the data processing. These programs include the Validation Automation Program and Matlab Plotting Program. Sometimes the computer test results are compared with manually processed results. The following check list is also implemented:

Table 16. Check List for the Pre-processing

Field Name	Check that…	Checked
PolicyID	* There are no null values. * All duplicates (if any) have valid policy information.	
Zipcode	* There are no null values. * All values belong to the set of 5-digit zipcodes in Florida.	
YearBuilt	* There are no null values (Note: policies with no YearBuilt should have for value 0). * All values are 4-digit numbers. * There are no values exceeding the current year. * There are no non-zero values less than 1700.	
ConstType	* There are no null values. * All values are either *masonry*, *frame*, *manufactured*, or *other*.	
PropValue	* There are no null values. * There are no negative values. * If all values are equal to 0, then they are updated to equal LMs. * The actual Property Values will be updated to the larger numeric value between Property Value and Structure Limit	
LMs	* There are no null or non-numeric values. * There are no negative values.	
LMapp	* There are no null or non-numeric values. * There are no negative values. * If all values are equal to 0, then they are updated to 10% of LMs.	
LMc	* There are no null or non-numeric values. * There are no negative values.	
LMale	* There are no null or non-numeric values. * There are no negative values.	

	* If all values are equal to 0, then they are updated to 20% of LMs.	
Deduc	* There are no null or non-numeric values. * There are no negative values. * All percentages are converted to numeric values. (Sometimes the percentages are represented as 2, 5, 10, 02, 05, 000002, 000005, 000010 instead of 2%, 5%, 10%)	
HurrDeduc	* There are no null or non-numeric values. * There are no negative values. * All percentages are converted to numeric values. (Sometimes the percentages are represented as 2, 5, 10, 02, 05, 000002, 000005, 000010 instead of 2%, 5%, 10%) * Normally Hurricane Deductible should be no less than 500.	
Coverage	* There are no null values. * The format is correct (i.e. value is equal to *A* or *R*).	
County	* There are no null values. * All county names are spelled only one way (i.e. all caps & no spelling errors, etc.). * All names are counties in Florida. * For counties as Miami-Dade (Miami Dade, Dade), St. Johns (Saint Johns, St Johns), St. Lucie (Saint Lucie, St Lucie), make sure only one type of spelling is used.	
PolicyForm	* If the field is present, values cannot be null. * The format is correct (i.e. value is equal to *DP-3*, *HO-6*, etc.).	
ProgramCode	* If the field is present, values cannot be null. * The format is correct (i.e. value is equal to *A*, *B*, etc.).	
TerritoryCode	* If the field is present, values cannot be null or non-numeric. * The format is correct (i.e. value is equal to *36*, *11*, etc.).	

Note: LMs is coverage limit for building structure; LMapp is coverage limit for appurtenant structure, LMc is coverage limit for contents; and LMale is coverage limit for ALE.

A-6 Logical Relationship to Risk

A. Loss costs shall not exhibit an illogical relation to risk, nor shall loss costs exhibit a significant change when the underlying risk does not change significantly.

The lost costs produced by the FPHLM model do not show illogical relations to risk nor do they change significantly when the underlying risk does not change.

B. Loss costs produced by the model shall be positive and non-zero for all valid Florida ZIP Codes.

The model produces positive and non-zero loss costs for all valid zip codes in the geo-coded set.

C. Loss costs cannot increase as the quality of construction type, materials and workmanship increases, all other factors held constant.

Loss cost decrease as the quality of construction increases.

D. Loss costs cannot increase as the presence of fixtures or construction techniques designed for hazard mitigation increases, all other factors held constant.

Loss cost decreases if loss mitigation measures are considered. See form V-2.

E. Loss costs cannot increase as the quality of building codes and enforcement increases, all other factors held constant.

Loss cost decreases as the quality of building codes and enforcement increases.

F. Loss costs shall decrease as deductibles increase, all other factors held constant.

Loss cost decrease as deductibles increase, all other factors held constant. See form A-6.

G. The relationship of loss costs for individual coverages, (e.g., structures and appurtenant structures, contents, and loss of use/additional living expense) shall be consistent with the coverages provided.

Relationship of loss costs for structure, appurtenants, contents, and ALE are consistent with coverages provided.

Disclosures

1. ***Demonstrate that loss cost relationships by type of coverage (structures, appurtenant structures, contents, additional living expenses) are consistent with actual insurance data.***

The structures loss consists of external and internal losses. Contents losses and additional living expenses are a function of the interior structure losses. Appurtenant losses are derived independently. All the losses are based on a combination of engineering principles, empirical equations, and engineering judgment. They were validated against claim data from Andrew, Charley, and Frances. The results are shown in the graphs below, for hurricane Charley and Frances. Each dot represents an insurance portfolio. The square symbols correspond to Charley, while the diamonds corresponds to Frances.

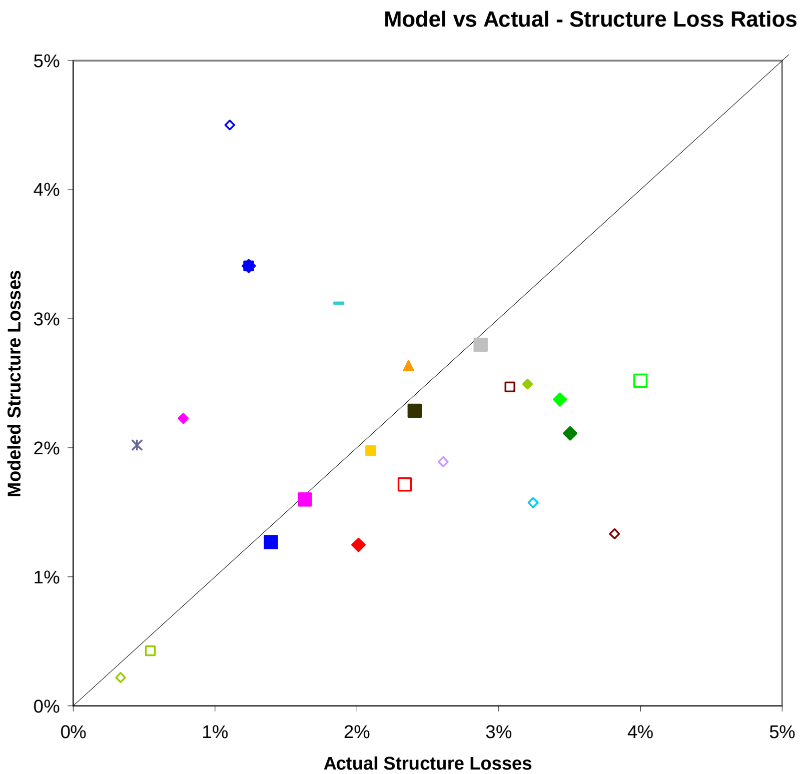


Figure 35. Model vs. Actual—Structure Loss Ratios

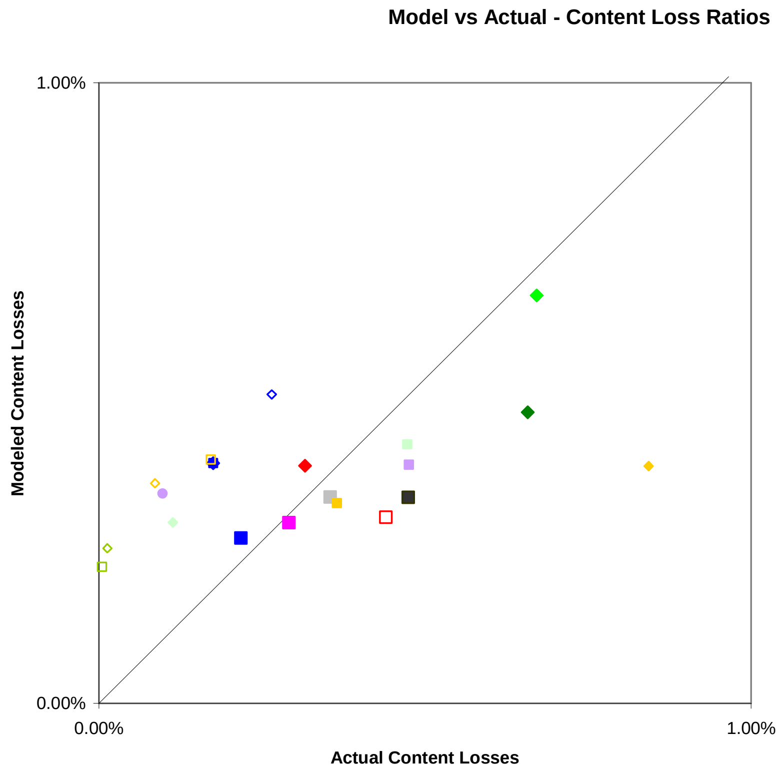


Figure 36. Model vs. Actual—Content Loss Ratios

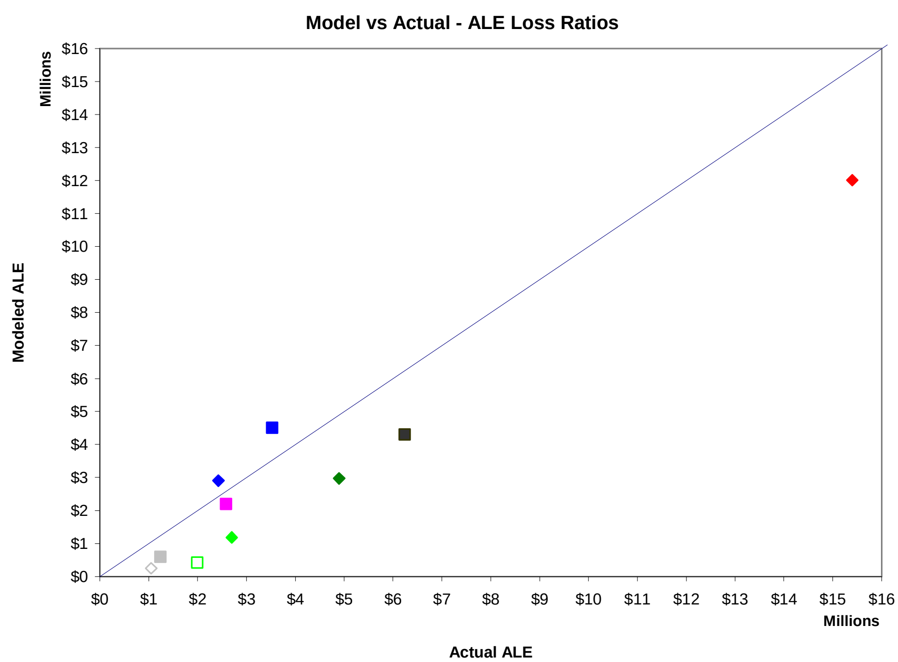


Figure 37. Model vs. Actual—ALE Loss Ratios

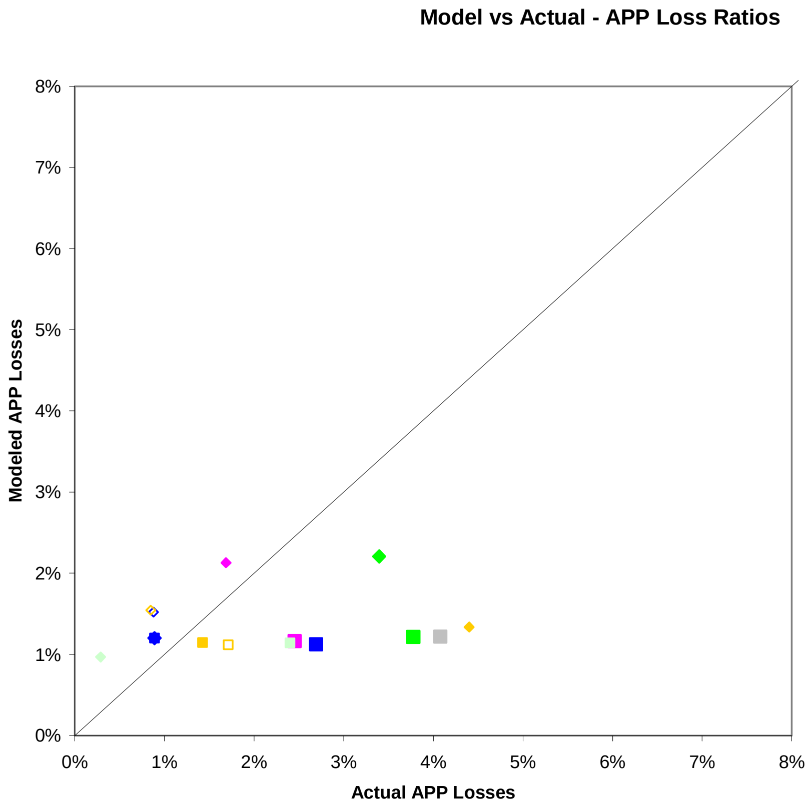


Figure 38. Model vs. Actual—APP Loss Ratios

2. ***Demonstrate that loss cost relationships by construction type or vulnerability function (frame, masonry, and mobile home) are consistent with actual insurance data.***

The validations described above were done for a mix of masonry and frame structures for each portfolio. In addition, portfolios of manufactured homes were validated separately. In general loss costs for masonry are lower than for frame, which are lower than for mobile homes.

Table 17. Modeled vs. Historical Loss by Construction Type

Hurricane = Charley

Exposure = Total Exposure (for all the policies in the zipcodes with over certain wind speeds)

Construction	Actual			Modeled			
	Exposure	Loss	Loss/Exposure	Exposure	Loss	Loss/Exposure	Difference
Frame	$2,134,563,899	$42,847,537	0.02007	$2,134,563,899	$43,183,794	0.020230734	-0.000160734
Masonry	$11,097,347,026	$213,394,399	0.01923	$11,097,347,026	$180,708,703	0.016283955	0.002946045
Other	$109,524,829	$1,924,457	0.01757	$109,524,829	$1,724,157	0.015742161	0.001827839

Hurricane = Charley

Exposure = Total Exposure (for all the policies in the zipcodes with over certain wind speeds)

Construction	Actual			Modeled			Difference
	Exposure	Loss	Loss/Exposure	Exposure	Loss	Loss/Exposure	
Frame	$697,847,220	$9,567,616	0.01371	$697,847,220	$11,349,118	0.016263041	-0.002553041
Masonry	$2,912,553,977	$45,463,407	0.01561	$2,912,553,977	$39,098,781	0.013424225	0.002185775

Hurricane = Charley

Exposure = Total Exposure

County	Actual			Modeled			Difference
	Exposure	Loss	Loss/Exposure	Exposure	Loss	Loss/Exposure	
LEE	$1,299,368,560	$8,570,535	0.0066	$1,299,368,560	$10,205,376	0.007854104	-0.001254104
ORANGE	$2,246,093,610	$21,750,913	0.00968	$2,246,093,610	$28,293,336	0.012596686	-0.002916686
COLLIER	$1,077,191,486	$688,935	0.00064	$1,077,191,486	$194,735	0.00018078	0.00045922
OSCEOLA	$1,719,708,929	$21,458,193	0.01248	$1,719,708,929	$18,348,471	0.010669521	0.001810479

Also see Standard S5 and Form S3.

3. Loss cost relationships among coverages, territories, and regions are consistent and reasonable.

Loss costs in regions that have relatively high historical frequency of hurricanes are usually higher. Similarly, the loss costs for inland counties on the average are lower than coastal counties. Also loss costs for northern region are lower than the central and southern region. This is shown in Form A-2 for structural coverage for three types of construction.

4. Explain any anomalies or special circumstances that might preclude any of the above conditions from occurring.

For some inland zip codes the loss costs may be higher than neighboring zip codes that are closer to the coast because of lower terrain roughness. Similarly a frame structure may have lower lost cost than masonry if the frame is newer and built under a stronger building code.

5. Provide a completed Form A-1, Loss Costs.

See Form A-1.

6. ***Provide a completed Form A-2, Zero Deductible Loss Costs by ZIP Code.***

See Form A-2.

7. ***Provide a completed Form A-3, Base Hurricane Storm Set Average Annual Zero Deductible Statewide Loss Costs.***

See Form A-3.

8. ***Provide a completed Form A-4, Hurricane Andrew Percent of Losses.***

See Form A-4.

9. ***Provide a completed Form A-5, Distribution of Hurricanes by Size of Loss.***

See Form A-5.

A-7 Deductibles and Policy Limits

A. The methods used in the development of mathematical distributions to reflect the effects of deductibles and policy limits shall be actuarially sound.

In practice the insurance companies often allocate deductibles to structure, content, AP, and ALE on a pro-rata loss basis. Thus, if for example, structure and content damages before deductible are $20,000 and $6,000 respectively, and the deductible is $3,000, then (20,000/26,000)(3,000) = $2,308 is allocated to structure and (6,000/26,000)(3,000) = $692 is allocated to contents. This means that the various damages have to be considered and deductibles applied simultaneously. The deductibles must be allocated among the different losses and the truncation applied to each loss separately on a pro-rata basis.

For pro-rata deductible method to work optimally, the functional relationships between structure damage and others should be estimated, and for each interval or class of structural damage, the corresponding mean and variance of the C, AP, and ALE damages should be specified. The conditional probabilities for C, AP, and ALE will then be the same as those for structural damage. An independent content matrix is somewhat problematic and may create biases in estimates of net of deductible losses. For structures we are likely to have damage ratio ranges or intervals of 0 to 2%, 2% to 4%, 4% to 6% etc. For each of these intervals (and its mid points), ideally we may want to use the mean and variance of the corresponding damage ratios for contents, AP and ALE. In practice, since the damage matrix for different types of losses are not directly related, we need to use the mean of the content, or AP, or ALE damage vector conditional on wind speeds, since the wind speed is the only common frame of reference to the various types of damages.

$$\text{Expected Structure Loss} = E(L_s) = \sum_{D_S}^{L+D_S} (DM_i - D_s)\, p_S(x_i w) + \sum LM_S\, p_S(x_i w)$$

$$\text{Expected Content Loss} = E(L_C) = \sum_{C_S}^{L+C_S} (f(X_i) - D_c)\, p_C\,(x_i w) \;+\; \sum LM_C\, p_C\,(x_i w)$$

$$\text{Expected Appurtenant Loss} = E(L_{AP}) = \sum (g(X_i) - D_{AP})\, p_S\,(x_i w) \;+\; \sum LM_{AP}\, p_S\,(x_i w)$$

$$\text{Expected ALE Loss} = E(L_{ALE}) = \sum (h(X_i) - D_{ALE})\, p_S\,(x_i w) \;+\; \sum LM_{ALE}\, p_S\,(x_i w)$$

$$\text{Expected Loss} = E(L) = E(L_S) + E(L_C) + E(L_{AP}) + E(L_{ALE})$$

Where, each of the losses net of deductible are ≥ 0. And where the deductibles D_S, D_C, D_{AP}, D_{ALE} are applied on a pro-rata basis to the respective damages as follows:

$$D_S = [DM_S / (DM_S + C + AP + ALE)] * D$$
$$D_C = [C / (DM_S + C + AP + ALE)] * D$$
$$D_{AP} = [AP / (DM_S + C + AP + ALE)] * D$$
$$D_{ALE} = [ALE / (DM_S + C + AP + ALE)] * D$$

For this method to work, ideally, the joint probabilities of the losses must be estimated and used. In practice such joint probabilities are hard to estimate and validate. Thus, the engineering component should ideally provide for each structural damage interval, and given a wind speed, the mean and variance of damage ratio for content, AP, ALE. The model uses the mean C, AP, and ALE for the given wind speed to determine the allocation of deductible to various coverage.

B. The relationship among the modeled deductible loss costs shall be reasonable.

The relationship among the modeled deductible loss costs is reasonable.

C. Deductible loss costs shall be calculated in accordance with s. 627.701(5)(a), F.S.

The deductible loss costs are calculated in accordance with s. 627.701(5)(a), F.S.

Disclosures

1. Describe the methods used in the model to treat deductibles (both flat and percentage), policy limits, replacement costs, and insurance-to-value when projecting loss costs.

In the probabilistic damage matrices, for each possible damage ratio there is a set of probabilities for different wind speeds. For each damage outcome the damage ratio is multiplied by insured value to get dollar damages, the deductible is deducted and net of deductible loss is estimated subject to the constraint that net loss is ≥ 0 and $\leq$ limit. Percentage deductibles are converted into dollar damage. Both the replacement cost and property value are assumed to equal the coverage limit.

2. ***Provide an example of how insurer loss (loss net of deductibles) is calculated. Discuss data or documentation used to confirm or validate the method used by the model.***

Example:

(A)		(B)	(C)	(D)=(A)*(C)	(E)=(D)-(B)
Structure Value	Policy Limit	Deductible	Damage Ratio	Zero Deductible Loss	Loss Net of Deductible
100,000	90,000	500	2%	2,000	1,500

Once the damage ratios are generated, then:

Loss net of deductible = (Damage Ratio x Bldg Value) - Deductible

and Loss $\leq$ Limit. If net loss is < 0 then replace it with zero.

Example

Bldg value = \$200,000. Limit = \$180,000. Deductible = \$3,000. J^{th} Damage ratio = 5%.

Loss net of deductible = .05 x 200,000 - 3,000 = \$7,000. If the J^{th} Damage ratio = 1%, then loss net of deductible = 0. If the damage ratio is 95% then the loss net of deductible is = \$180,000 - \$3,000 = \$177,000.

3. ***Describe how the model calculates annual deductibles.***

If there are multiple hurricanes in a year in the stochastic set, the wind deductibles are applied to the first hurricane, and any remaining amount is then applied to the second hurricane. If none remains then the general peril deductible can be applied.

A-8 Contents

A. The methods used in the development of contents loss costs shall be actuarially sound.

B. The relationship between the modeled structure and contents loss costs shall be reasonable, based on the relationship between historical structure and contents losses.

A. The methods used in the development of contents loss costs is actuarially sound

B. The relationship between the modeled structure and contents loss costs is reasonable, based on the relationship between historical structure and contents losses.

Disclosure

1. Describe the methods used in the model to calculate loss costs for contents coverage associated with personal residential structures (including mobile homes), tenants, and condo unit owners.

In all cases, contents losses are a function of the internal damage. These empirical functions are based on engineering judgment, and were validated against claim data for hurricane Andrew, Charley, and Frances.

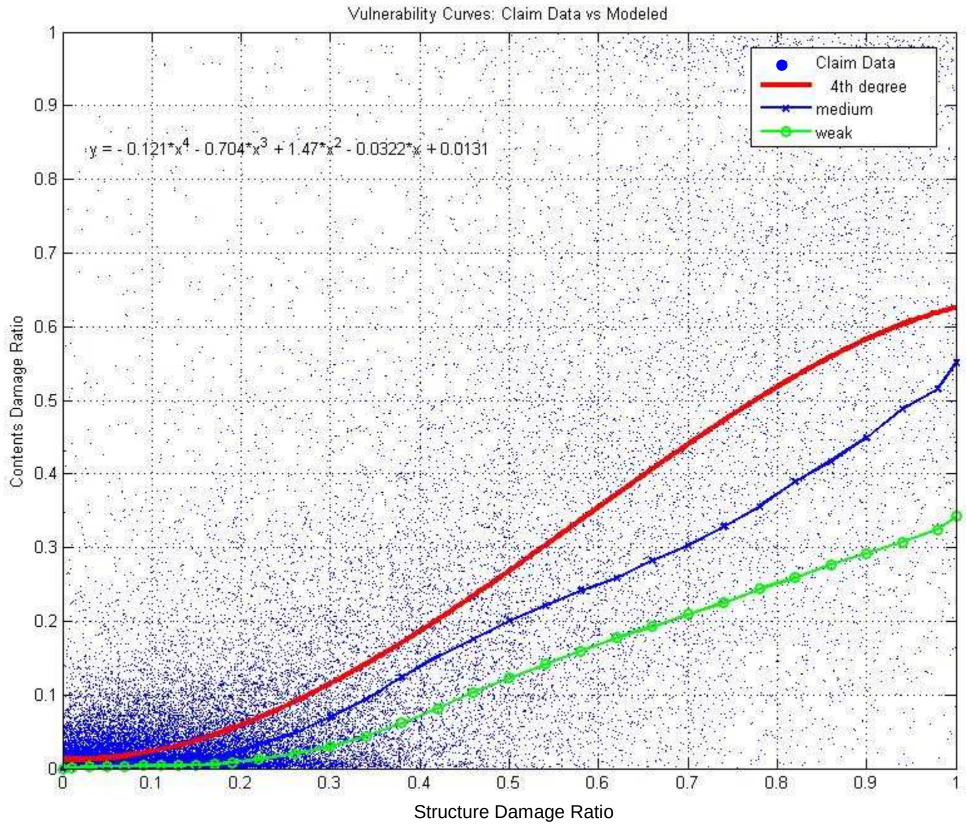


Figure 39. Modeled vs. Actual Relationship between Structure and Content Damage Ratios

A-9 Additional Living Expense (ALE)

A. The methods used in the development of Additional Living Expense (ALE) loss costs shall be actuarially sound.

B. ALE loss cost derivations shall consider the estimated time required to repair or replace the property.

C. The relationship between the modeled structure and ALE loss costs shall be reasonable, based on the relationship between historical structure and ALE losses.

D. ALE loss costs produced by the model shall appropriately consider ALE claims arising from damage to the infrastructure.

A. The methods used in the development of Additional Living Expense (ALE) loss costs are actuarially sound.

B. ALE loss cost derivations consider the estimated time required to repair or replace the property.

C. The model uses ALE vulnerability function derived from the relationship between structural damage and ALE. The ALE vulnerability functions have been calibrated using historical claim data on structure and ALE.

D. ALE loss costs produced by the model appropriately consider ALE claims arising from damage to the infrastructure. The model does not distinguish explicitly between direct and indirect loss to the structure, but the function is calibrated against claim data that includes both types of losses.

Disclosures

1. ***Describe the methods used to develop loss cost for additional living expense coverage. State whether the model considers both direct and indirect loss to the structure. For example, direct loss is for expenses paid to house policyholders in an apartment while their home is being repaired. Indirect loss is for expenses incurred for loss of power (e.g., food spoilage).***

The additional living expenses are based on an empirical functional relationship of the interior damage to the structure. The model does not distinguish explicitly between direct and indirect loss to the structure, but the function is calibrated against claim data that includes both types of losses.

2. ***State the minimum threshold at which ALE loss is calculated (e.g., loss is estimated for structure damage greater than 20% or only for category 3, 4, 5 events). Provide documentation of validation test results to verify the approach used.***

The ALE loss is calculated as a function of interior damage. There is no minimum threshold at which ALE loss is calculated, since it is believed that even with minimum interior damage, some ALE losses might exist when residents are subject to a mandatory evacuation.

A-10 Output Ranges

A. Output ranges shall be logical and any deviations supported.

Output ranges generated by the model are logical. Deviations are explained.

B. All other factors held constant, output ranges produced by the model shall reflect lower loss costs for:

1. masonry construction versus frame construction,

Output ranges produced by the model reflect lower loss costs for masonry versus frame construction. Deviations are explained.

2. residential risk exposure versus mobile home risk exposure,

Output ranges produced by the model reflect lower loss costs for residential versus mobile home risk exposure.

3. in general, inland counties versus coastal counties, and

In general output ranges produced by the model reflect lower loss costs for inland counties versus coastal counties.

4. in general, northern counties versus southern counties.

In general output ranges produced by the model reflect lower loss costs for northern counties versus southern counties.

Disclosures

1. Provide an explanation for all anomalies in the loss costs that are not consistent with the requirements of this Standard.

Loss costs for masonry are lower than frame for every zip code. But the county weighted average loss cost for masonry may sometimes exceed frame because there is more masonry exposure, and hence the weights are greater, in zip codes with high loss costs. Such is also the case for statewide weighted average masonry versus frame loss costs.

In a few cases in form A-1, loss costs are higher for zip codes that are more inland than their neighbors (e.g., 33186 versus 33156 in Miami Dade county). The reason is that terrain roughness coefficients are significantly lower in these more inland zip codes.

2. ***Provide an explanation of the differences in the output ranges between the prior year and the current year submission.***

A demand surge model was introduced in version 2.0. The meteorology and vulnerability components changed between version 1.5 and 2.0 as follows:

<u>Changes in the Meteorology component between version 1.5 and 2.0</u>

1)Value of air density constant representative of hurricane conditions 1.14 kg/m^3 (version 1.5 used air density of 1.22)
2)New version of Rmax model. Version 1.5 was as in Powell et al., 2005.
3)New conversion of marine winds to open terrain. Version 1.5 used Simiu and Scanlon method.
4)Uses Vickery 2005 pressure decay model. Version 1.5 was based on Vickery and Twisdale 2000.
The boundary layer depth and influence coefficient (sigma) vary between the storm over sea (450 m and .3) and after landfall (1 km and 0.9). Version 1.5 did not specify these quantities.
6) The reduction factor from the mean boundary layer value to the surface wind speed is 0.775. In version 1.5 the reduction value was 0.73.
7) Drag coefficient varies with wind speed and is capped at high winds (version 1.5 did not implement a specified drag coefficient).
8) After landfall Drag coefficient changes to a value representative of a roughness of 0.2 m. Version 1.5 had no change after landfall.

<u>Changes in the Vulnerability component between version 1.5 and 2.0</u>

1) modeling of interior and content damage due to water penetration at low wind speeds
2) recalibration of the interior damage equations due to validation against the 2004 claim data combined with the new wind field. This includes the interior damage due to sheathing, roof cover, and gable ends.
3) recalibration of the contents, appurtenant, and ALE damage equations due to validation against the 2004 claim data combined with the new wind field
4) reduction of the external damage values due to lower air density adopted by the meteorological team, more representative of hurricane conditions. The reduction is by a factor of 0.94 (equal to the ratio of hurricane air density over normal air density).

The R-Max model of the meteorology component and the demand surge model were changed between version 2.0 and 2.5

<u>Meteorology model changes from v2.5 to 2.6</u>

1. The stochastic tracks are initialized by using the historical storm location, central sea-level pressure, and motion 36 h before landfall. Small random error terms are added to these data and the historical record is recycled such that thousands of years of stochastic tracks are generated. The landfall frequency peak is shifted to Miami-Dade county and the central pressures at landfall tend to be higher than v2.5.

2. The roughness for a zip code is determined by integrating the effective roughness (a roughness determined from integrating high resolution upstream land use elements over a wind

direction octant) over the entire zip code and applying the result to the population weighted centroid of the zip code.

3. The pressure decay model now includes the Vickery (2005) models for the Gulf coast (applied to the Florida panhandle) and Atlantic coast (applied to NE Florida). In general the pressures decay (fill) faster than v2.5 resulting in weaker inland winds for regions A and D.

4. We have implemented new roughness based on the recently released MRLC 2001 land cover database.

Vulnerability model changes from v2.5 to 2.6

The actual vulnerability functions have not changed. How they may be combined has changed. The engineering team has developed weak, medium and strong vulnerability matrices based on criteria that are contingent on year built. When the year built is not available, which is the case when analyses are performed on the hypothetical data and Cat Fund data used for the actuarial tests and forms, the matrices are combined based on the building age statistics of the region.

After processing close to 1.5 million properties from different insurance portfolios, we got new statistics for both frame and masonry, these statistics were further updated recently with additional data. In general, the new statistics include less pre-1970 buildings. Therefore, the weights used to combine the matrices have been changed.

In addition, for the particular case of the Keys, the allocation of the different age group to different strength categories has been revised to reflect the larger diversity of the building stock in that region and the subsequent increased uncertainty.

In general, the new weighting resulted in lower losses, particularly for mobile homes.

Actuarial model changes from v2.5 to 2.6

1. The demand surge model has been completely revised.
2. We are now using the same Appurtenant matrix as in version 1.5.

3. ***Provide justification for changes from the prior submission of greater than ten percent in weighted average loss costs for any county, specifically by county.***

First time submission. See above A-10.2.

4. ***Provide justification for changes from the prior submission of ten percent or less in the weighted average loss costs for any county, in the aggregate.***

First time submission. See A-10.2

5. ***Provide a completed Form A-6, Output Ranges.***

See Form A-6.

6. Provide a completed Form A-7, Percentage Change in Output Ranges.

See Form A-7.

7. Provide a completed Form A-8, Percentage Change in Output Ranges by County.

Not applicable. First time submission.

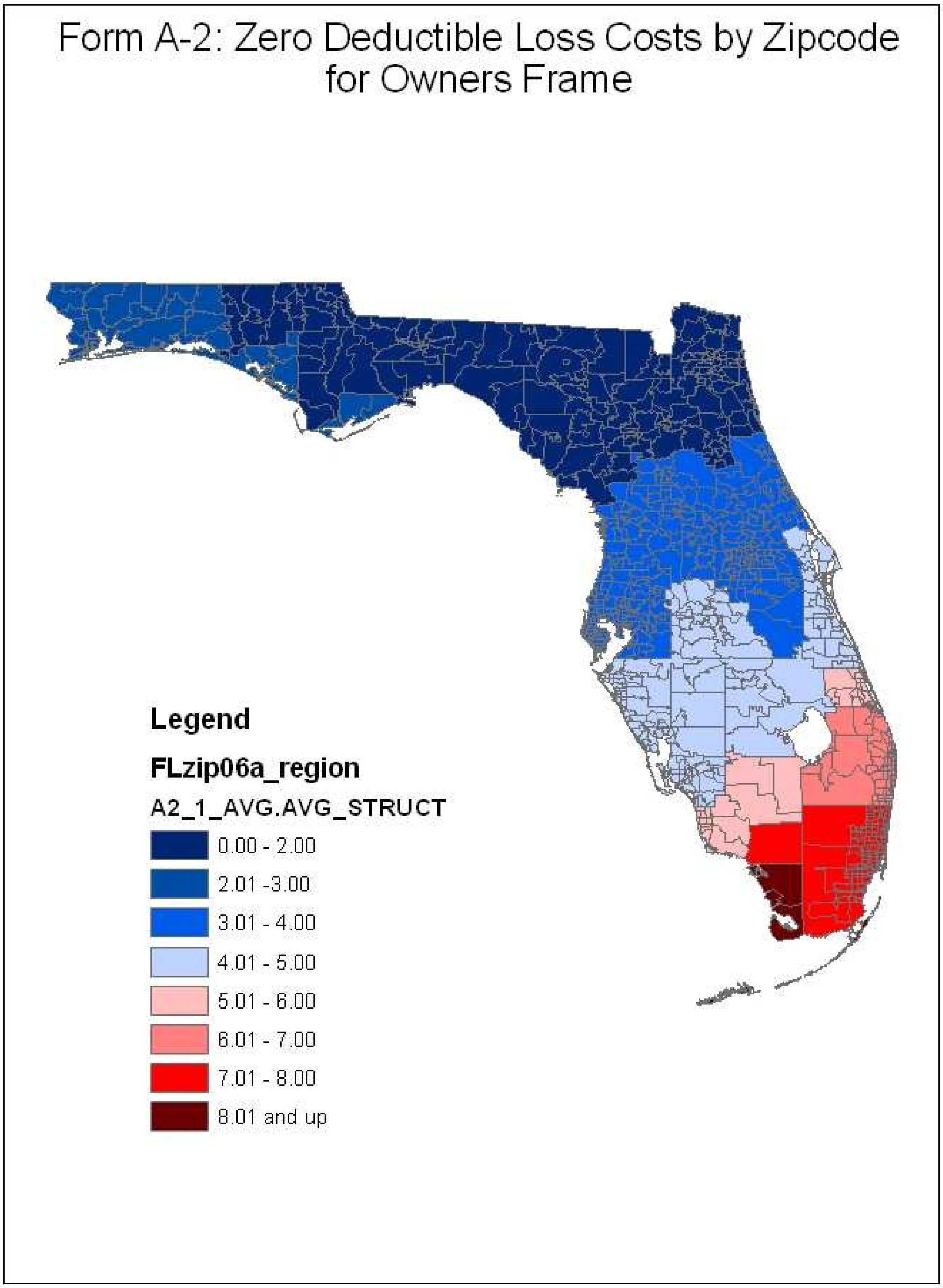


Figure 40. A-2: Zero Deductible Loss Cost by Zip Code for Owners Frame.

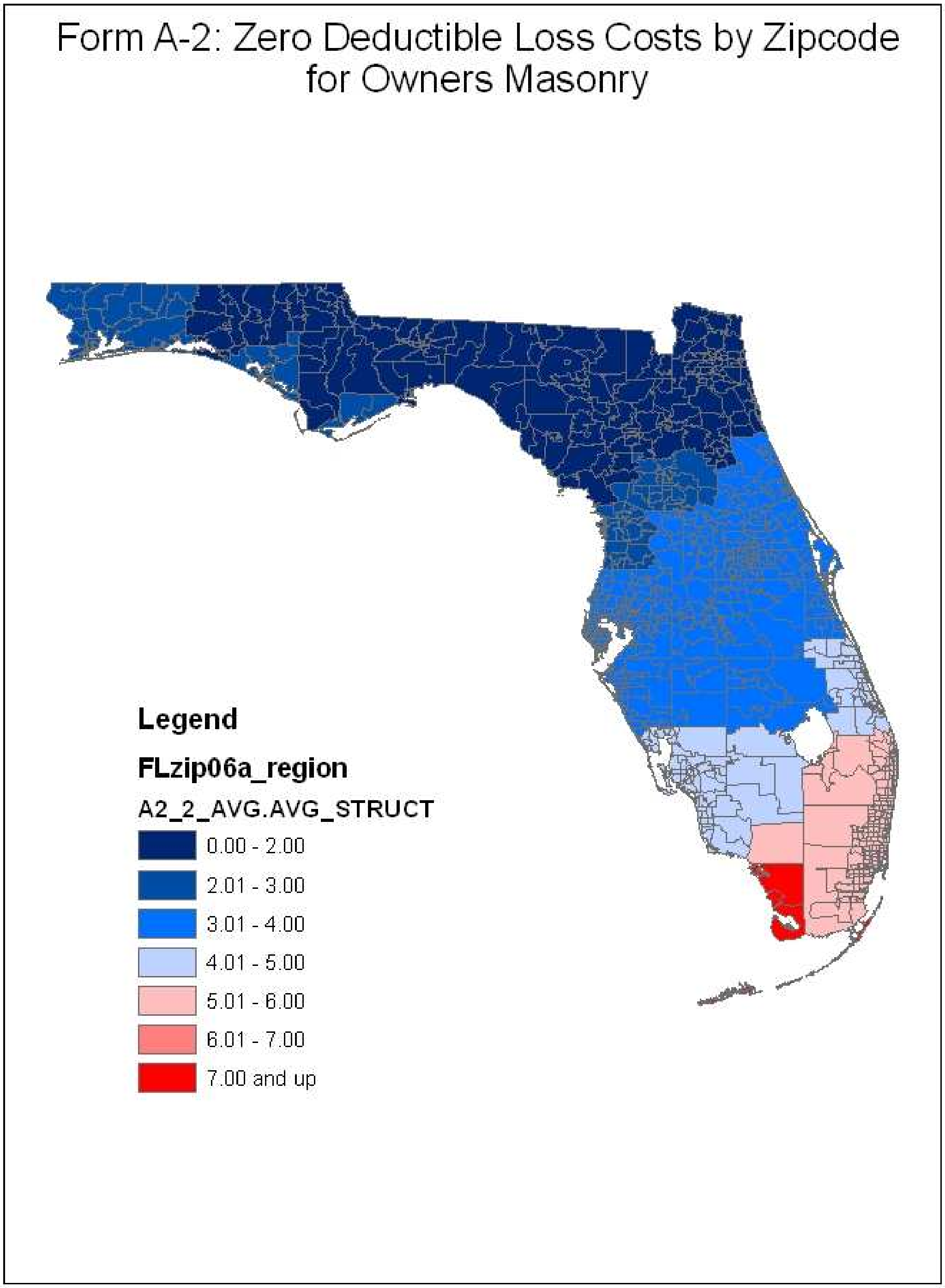


Figure 41. A Zero Deductible Costs by Zip Code for Owners Masonry

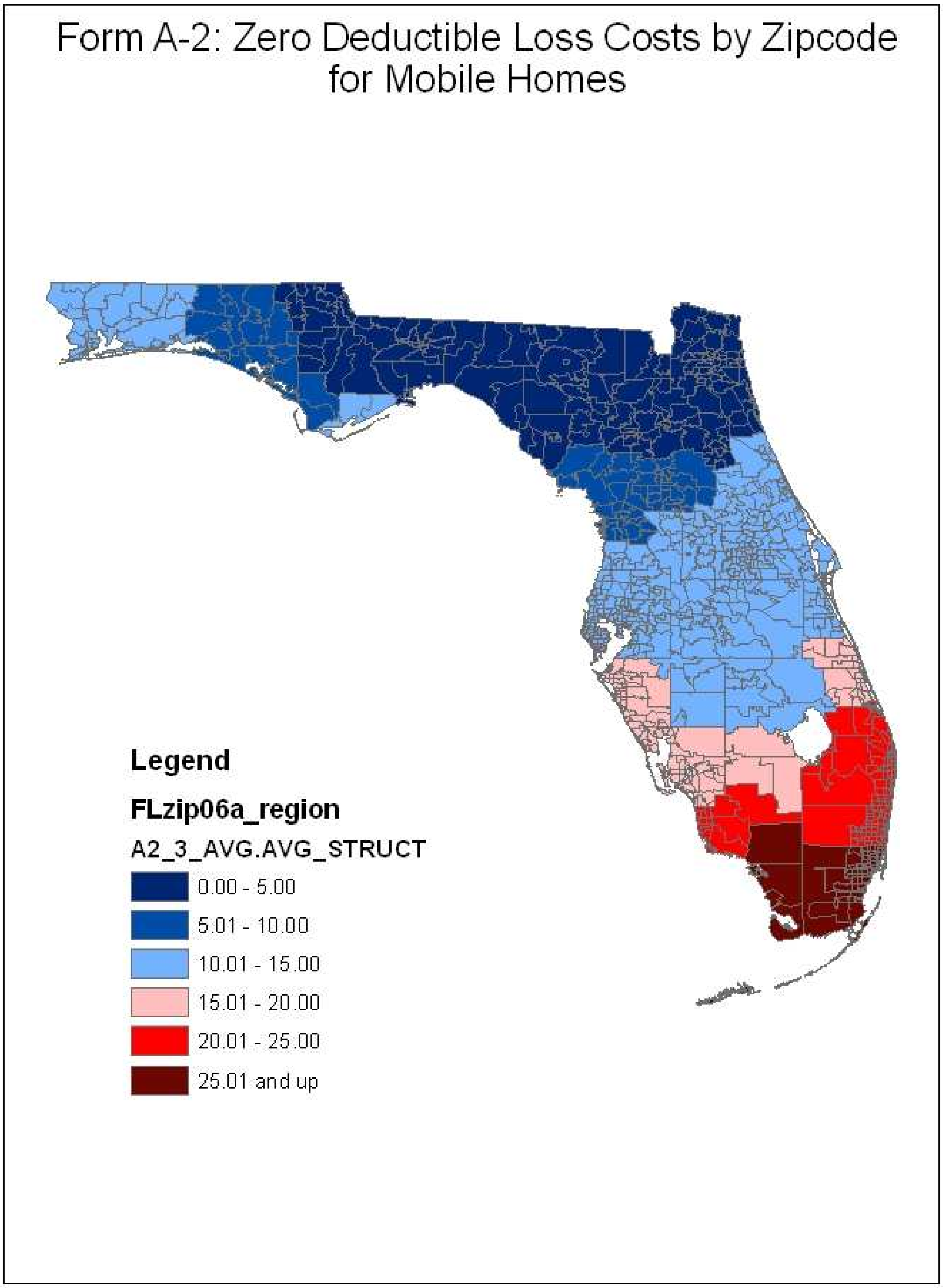


Figure 42. Zero Deductible Loss Costs by Zip Code for Mobile Home

Form A-3: Base Hurricane Storm Set Average Annual Zero Deductible Statewide Loss Costs

Date	Year	Name	Loss	Contribution
8/10/1901	1901	NoName4	$299,389,638	$2,824,430.55
9/11/1903	1903	NoName3	$5,827,985,874	$54,980,998.81
6/16/1906	1906	NoName2	$983,453,651	$9,277,864.63
9/25/1906	1906	NoName6	$329,959,510	$3,112,825.57
10/8/1906	1906	NoName8	$6,249,286,503	$58,955,533.05
10/11/1909	1909	NoName10	$818,140,367	$7,718,305.35
10/17/1910	1910	NoName5	$7,588,064,164	$71,585,510.98
8/8/1911	1911	NoName2	$162,493,991	$1,532,962.18
8/23/1911	1911	NoName3	$0	$0.00
9/11/1912	1912	NoName3	$1,841,519	$17,372.82
9/3/1915	1915	NoName4	$288,732,014	$2,723,886.92
7/4/1916	1916	NoName1	$1,065,556	$10,052.41
10/17/1916	1916	NoName13	$397,868,832	$3,753,479.55
11/15/1916	1916	NoName14	$198,696,466	$1,874,494.96
9/26/1917	1917	NoName3	$606,129,563	$5,718,203.43
9/9/1919	1919	NoName2	$657,326,342	$6,201,191.90
10/24/1921	1921	NoName6	$10,749,136,819	$101,406,951.12
9/13/1924	1924	NoName4	$100,562,138	$948,699.41
10/20/1924	1924	NoName7	$4,838,791,605	$45,648,977.41
11/30/1925	1925	NoName2	$1,644,579,441	$15,514,900.38
7/27/1926	1926	NoName1	$4,605,917,777	$43,452,054.50
9/18/1926	1926	NoName6	$18,011,043,325	$169,915,503.07
10/20/1926	1926	NoName10	$254,563,582	$2,401,543.22
8/7/1928	1928	NoName1	$3,634,017,714	$34,283,185.98
9/16/1928	1928	NoName4	$18,818,854,666	$177,536,364.77
9/27/1929	1929	NoName2	$9,250,554,914	$87,269,385.98
8/29/1932	1932	NoName3	$739,144,060	$6,973,057.17
7/29/1933	1933	NoName5	$1,033,113,861	$9,746,357.18
9/3/1933	1933	NoName12	$6,239,440,681	$58,862,647.93
9/2/1935	1935	NoName2	$5,578,082,487	$52,623,419.69
11/4/1935	1935	NoName6	$3,967,037,452	$37,424,881.62
7/27/1936	1936	NoName5	$380,813,557	$3,592,580.72
8/11/1939	1939	NoName2	$3,262,740,849	$30,780,574.04
8/5/1940	1940	NoName3	$0	$0.00
10/5/1941	1941	NoName5	$11,693,955,649	$110,320,336.32
10/18/1944	1944	NoName11	$11,923,927,734	$112,489,884.28
6/22/1945	1945	NoName1	$5,791,373,582	$54,635,599.83
9/15/1945	1945	NoName9	$9,606,055,826	$90,623,168.17
10/7/1946	1946	NoName5	$6,043,240,357	$57,011,701.48
9/17/1947	1947	NoName4	$11,423,120,614	$107,765,288.81
10/11/1947	1947	NoName8	$3,925,669,037	$37,034,613.55
9/21/1948	1948	NoName7	$3,121,319,641	$29,446,411.71
10/5/1948	1948	NoName8	$1,169,199,043	$11,030,179.65
8/26/1949	1949	NoName2	$11,345,531,877	$107,033,319.59
8/29/1950	1950	BAKER	$217,541,789	$2,052,281.03

9/3/1950	1950	EASY	$7,180,906,962	$67,744,405.30
10/17/1950	1950	KING	$2,538,375,420	$23,946,937.92
9/25/1953	1953	FLORENCE	$239,125,418	$2,255,900.17
9/24/1956	1956	FLOSSY	$330,768,820	$3,120,460.56
9/9/1960	1960	DONNA	$11,344,147,796	$107,020,262.23
9/14/1960	1960	ETHEL	$0	$0.00
8/26/1964	1964	CLEO	$6,172,721,727	$58,233,223.84
9/9/1964	1964	DORA	$2,763,158,684	$26,067,534.76
10/14/1964	1964	ISBELL	$4,967,591,708	$46,864,072.71
9/7/1965	1965	BETSY	$3,338,568,630	$31,495,930.47
6/8/1966	1966	ALMA	$5,751,800,513	$54,262,268.99
9/21/1966	1966	INEZ	$231,427,885	$2,183,281.94
10/16/1968	1968	GLADYS	$2,916,682,642	$27,515,873.98
8/16/1969	1969	CAMILLE	$0	$0.00
6/18/1972	1972	AGNES	$150,610,944	$1,420,857.97
9/22/1975	1975	ELOISE	$521,981,739	$4,924,356.02
9/3/1979	1979	DAVID	$4,603,570,950	$43,429,914.62
9/12/1979	1979	FREDERIC	$455,633,837	$4,298,432.42
8/29/1985	1985	ELENA	$153,812,274	$1,451,059.19
11/20/1985	1985	KATE	$210,207,970	$1,983,094.06
10/12/1987	1987	FLOYD	$88,632,763	$836,158.15
8/24/1992	1992	ANDREW	$11,691,525,110	$110,297,406.70
8/1/1995	1995	ERIN	$3,258,549,159	$30,741,029.81
10/3/1995	1995	OPAL	$1,166,002,638	$11,000,024.89
7/16/1997	1997	DANNY	$45,059,841	$425,092.84
9/1/1998	1998	EARL	$12,213,630	$115,222.92
9/25/1998	1998	GEORGES	$330,283,192	$3,115,879.17
10/15/1999	1999	IRENE	$2,597,518,921	$24,504,895.49
8/13/2004	2004	CHARLEY	$5,043,339,894	$47,578,678.24
9/4/2004	2004	FRANCES	$6,224,695,323	$58,723,540.78
9/14/2004	2004	IVAN	$360,095,778	$3,397,129.98
9/20/2004	2004	IVAN	$0	$0.00
9/25/2004	2004	JEANNE	$6,661,889,086	$62,848,010.24
7/7/2005	2005	DENNIS	$393,813,195	$3,715,218.82
8/24/2005	2005	KATRINA	$2,382,728,166	$22,478,567.61
9/18/2005	2005	RITA	$113,342,244	$1,069,266.45
10/20/2005	2005	WILMA	$9,253,267,876	$87,294,979.96

Form A-4: Hurricane Andrew Percent of Losses

Zipcode	V3mph	Total_loss	Percent_loss
41	70	$0	0.00%
43	131	$0	0.00%
53	54	$0	0.00%
97	131	$0	0.00%
98	68	$0	0.00%
33001	37	$0	0.00%
33002	95	$26,689	0.00%
33004	77	$10,062,864	0.09%
33008	85	$57,193	0.00%
33009	86	$26,906,260	0.23%
33010	104	$27,092,326	0.23%
33011	105	$39,843	0.00%
33012	98	$44,045,634	0.38%
33013	99	$29,266,694	0.25%
33014	96	$34,917,608	0.30%
33015	91	$43,561,340	0.37%
33016	92	$26,396,647	0.23%
33017	89	$75,797	0.00%
33018	93	$35,508,548	0.30%
33019	91	$28,836,714	0.25%
33020	80	$24,360,684	0.21%
33021	79	$58,082,900	0.50%
33022	82	$95,660	0.00%
33023	82	$52,862,858	0.45%
33024	79	$60,209,865	0.52%
33025	84	$41,193,249	0.35%
33026	80	$44,231,873	0.38%
33027	84	$65,923,359	0.56%
33028	80	$45,814,431	0.39%
33029	81	$78,818,199	0.67%
33030	130	$84,585,752	0.72%
33031	136	$70,188,294	0.60%
33032	135	$88,943,332	0.76%
33033	132	$81,776,793	0.70%
33034	124	$38,513,529	0.33%
33035	127	$12,047,456	0.10%
33036	45	$0	0.00%
33037	70	$53,775,649	0.46%
33039	130	$1,167,660	0.01%
33040	31	$0	0.00%
33041	29	$0	0.00%
33042	38	$0	0.00%
33043	33	$0	0.00%
33045	29	$0	0.00%
33050	41	$0	0.00%
33051	36	$0	0.00%
33052	36	$0	0.00%

33054	93	$14,016,398	0.12%
33055	88	$36,283,023	0.31%
33056	89	$23,298,389	0.20%
33060	63	$16,288,304	0.14%
33061	64	$91,765	0.00%
33062	71	$28,554,286	0.24%
33063	62	$24,990,598	0.21%
33064	60	$27,617,580	0.24%
33065	62	$24,799,407	0.21%
33066	62	$7,268,776	0.06%
33067	62	$30,279,772	0.26%
33068	64	$23,088,241	0.20%
33069	63	$7,731,744	0.07%
33070	49	$0	0.00%
33071	63	$43,074,067	0.37%
33072	63	$9,305	0.00%
33073	60	$15,835,327	0.14%
33074	65	$19,177	0.00%
33075	60	$33,180	0.00%
33076	59	$28,084,185	0.24%
33077	62	$14,034	0.00%
33081	80	$24,658	0.00%
33082	78	$60,523	0.00%
33083	79	$28,016	0.00%
33084	78	$61,030	0.00%
33090	127	$216,135	0.00%
33092	137	$123,147	0.00%
33093	63	$7,635	0.00%
33097	61	$3,016	0.00%
33101	113	$563,457	0.00%
33102	110	$204,150	0.00%
33107	110	$11,392	0.00%
33109	143	$41,826,327	0.36%
33110	102	$10,702	0.00%
33111	137	$110,035	0.00%
33112	110	$54,383	0.00%
33114	119	$1,082,246	0.01%
33116	147	$421,137	0.00%
33119	126	$12,307	0.00%
33121	139	$89,886	0.00%
33122	107	$87,470	0.00%
33124	97	$34,724	0.00%
33125	115	$43,662,865	0.37%
33126	117	$32,908,959	0.28%
33127	108	$14,454,501	0.12%
33128	116	$1,671,319	0.01%
33129	138	$94,193,947	0.81%
33130	117	$6,338,378	0.05%
33131	142	$23,156,597	0.20%
33132	142	$8,275,001	0.07%

33133	132	$243,115,726	2.08%
33134	126	$192,259,957	1.64%
33135	114	$28,305,753	0.24%
33136	114	$3,494,811	0.03%
33137	117	$20,551,675	0.18%
33138	102	$31,579,797	0.27%
33139	115	$53,125,483	0.45%
33140	118	$104,415,771	0.89%
33141	120	$49,259,105	0.42%
33142	110	$28,186,643	0.24%
33143	140	$417,450,090	3.57%
33144	122	$55,060,209	0.47%
33145	124	$85,798,994	0.73%
33146	137	$175,785,827	1.50%
33147	102	$24,787,921	0.21%
33148	131	$388,642	0.00%
33149	154	$258,780,472	2.21%
33150	103	$13,971,366	0.12%
33151	102	$46,647	0.00%
33152	110	$414,691	0.00%
33153	100	$78,731	0.00%
33154	99	$26,507,863	0.23%
33155	128	$236,396,151	2.02%
33156	154	$941,068,315	8.05%
33157	145	$589,050,301	5.04%
33158	146	$147,573,401	1.26%
33159	128	$338,461	0.00%
33160	108	$50,608,812	0.43%
33161	96	$29,030,751	0.25%
33162	91	$27,467,919	0.23%
33163	87	$55,291	0.00%
33164	88	$20,140	0.00%
33165	132	$272,283,666	2.33%
33166	111	$34,386,424	0.29%
33167	97	$11,898,411	0.10%
33168	93	$18,204,784	0.16%
33169	88	$24,523,544	0.21%
33170	138	$50,795,317	0.43%
33172	121	$32,503,700	0.28%
33173	144	$314,902,033	2.69%
33174	122	$52,666,539	0.45%
33175	132	$269,552,202	2.31%
33176	150	$706,121,698	6.04%
33177	146	$346,054,395	2.96%
33178	107	$48,557,976	0.42%
33179	87	$31,602,439	0.27%
33180	92	$28,134,805	0.24%
33181	98	$16,164,526	0.14%
33182	120	$43,547,844	0.37%
33183	140	$205,930,523	1.76%

33184	126	$77,350,284	0.66%
33185	132	$90,204,950	0.77%
33186	145	$569,732,724	4.87%
33187	148	$212,117,085	1.81%
33189	141	$118,199,925	1.01%
33190	140	$21,756,529	0.19%
33193	141	$195,673,280	1.67%
33194	129	$419,881	0.00%
33195	115	$136,337	0.00%
33196	145	$350,261,536	3.00%
33197	138	$196,300	0.00%
33199	123	$0	0.00%
33231	139	$166,316	0.00%
33233	134	$83,164	0.00%
33234	119	$12,423	0.00%
33238	103	$24,164	0.00%
33239	121	$9,991	0.00%
33242	108	$2,062	0.00%
33243	134	$71,776	0.00%
33245	124	$40,959	0.00%
33247	110	$3,742	0.00%
33255	132	$69,277	0.00%
33256	150	$191,610	0.00%
33257	137	$25,030	0.00%
33261	94	$0	0.00%
33265	130	$42,645	0.00%
33266	105	$14,795	0.00%
33269	87	$25,742	0.00%
33280	94	$28,687	0.00%
33283	141	$76,607	0.00%
33296	150	$13,902	0.00%
33299	108	$0	0.00%
33301	69	$25,408,023	0.22%
33302	72	$57,073	0.00%
33303	72	$49,937	0.00%
33304	71	$15,216,792	0.13%
33305	68	$15,557,741	0.13%
33306	70	$5,526,217	0.05%
33307	65	$58,694	0.00%
33308	66	$36,300,596	0.31%
33309	66	$18,880,976	0.16%
33310	66	$190,577	0.00%
33311	67	$19,250,692	0.16%
33312	73	$48,884,056	0.42%
33313	68	$21,046,836	0.18%
33314	75	$14,512,815	0.12%
33315	72	$11,273,963	0.10%
33316	83	$27,692,577	0.24%
33317	72	$41,468,469	0.35%
33318	68	$141,190	0.00%

33319	68	$31,410,582	0.27%
33320	66	$44,739	0.00%
33321	66	$30,370,072	0.26%
33322	68	$39,959,871	0.34%
33323	68	$22,581,143	0.19%
33324	72	$40,227,080	0.34%
33325	72	$34,307,533	0.29%
33326	72	$39,629,409	0.34%
33327	71	$43,229,765	0.37%
33328	77	$40,424,332	0.35%
33329	74	$106,577	0.00%
33330	77	$29,725,550	0.25%
33331	77	$45,572,512	0.39%
33332	76	$17,762,990	0.15%
33334	63	$17,405,471	0.15%
33335	65	$7,988	0.00%
33336	66	$0	0.00%
33337	71	$20,426	0.00%
33338	71	$30,159	0.00%
33339	67	$49,967	0.00%
33340	66	$857	0.00%
33345	67	$23,370	0.00%
33346	77	$34,061	0.00%
33348	72	$1,010	0.00%
33349	72	$3,491	0.00%
33351	66	$18,142,959	0.16%
33355	73	$7,735	0.00%
33359	70	$201	0.00%
33388	71	$460	0.00%
33394	67	$4,919	0.00%
33401	45	$0	0.00%
33402	53	$92,069	0.00%
33403	44	$0	0.00%
33404	45	$0	0.00%
33405	47	$0	0.00%
33406	48	$0	0.00%
33407	45	$0	0.00%
33408	47	$0	0.00%
33409	47	$0	0.00%
33410	44	$0	0.00%
33411	45	$0	0.00%
33412	44	$0	0.00%
33413	47	$0	0.00%
33414	47	$0	0.00%
33415	47	$0	0.00%
33416	49	$0	0.00%
33417	47	$0	0.00%
33418	46	$0	0.00%
33419	43	$0	0.00%
33420	43	$0	0.00%

33421	45	$0	0.00%
33422	46	$0	0.00%
33424	50	$1,300	0.00%
33425	50	$393	0.00%
33426	51	$108,432	0.00%
33427	57	$227,567	0.00%
33428	59	$31,562,042	0.27%
33429	61	$109,519	0.00%
33430	46	$0	0.00%
33431	54	$10,518,053	0.09%
33432	62	$23,880,929	0.20%
33433	60	$39,698,794	0.34%
33434	57	$15,397,356	0.13%
33435	52	$38,708	0.00%
33436	51	$303,932	0.00%
33437	52	$558,916	0.00%
33438	42	$0	0.00%
33439	44	$0	0.00%
33440	48	$0	0.00%
33441	60	$10,820,178	0.09%
33442	60	$14,564,400	0.12%
33443	59	$35,035	0.00%
33444	53	$5,776,597	0.05%
33445	53	$13,280,059	0.11%
33446	55	$15,988,373	0.14%
33447	54	$64,642	0.00%
33448	54	$46,061	0.00%
33454	48	$0	0.00%
33458	42	$0	0.00%
33459	47	$0	0.00%
33460	49	$0	0.00%
33461	47	$0	0.00%
33462	49	$0	0.00%
33463	50	$247,627	0.00%
33464	49	$0	0.00%
33465	52	$308	0.00%
33466	50	$763	0.00%
33467	48	$0	0.00%
33468	44	$0	0.00%
33470	45	$0	0.00%
33471	44	$0	0.00%
33474	50	$990	0.00%
33476	44	$0	0.00%
33477	45	$0	0.00%
33478	41	$0	0.00%
33480	56	$35,494,684	0.30%
33481	57	$27,687	0.00%
33482	54	$68,297	0.00%
33483	58	$16,421,625	0.14%
33484	54	$11,826,182	0.10%

33486	57	$12,083,669	0.10%
33487	56	$12,866,010	0.11%
33488	62	$35,617	0.00%
33493	47	$0	0.00%
33496	55	$29,501,475	0.25%
33497	57	$72,140	0.00%
33498	56	$13,806,289	0.12%
33499	56	$22,489	0.00%
33901	52	$100,372	0.00%
33902	52	$2,127	0.00%
33903	49	$0	0.00%
33904	55	$20,722,446	0.18%
33905	50	$124,842	0.00%
33906	54	$22,864	0.00%
33907	54	$5,506,555	0.05%
33908	57	$18,112,822	0.15%
33909	53	$3,984,966	0.03%
33910	51	$530	0.00%
33911	52	$267	0.00%
33912	56	$22,171,976	0.19%
33913	55	$4,245,724	0.04%
33914	55	$19,214,441	0.16%
33915	51	$480	0.00%
33916	51	$32,182	0.00%
33917	51	$174,059	0.00%
33918	56	$57,436	0.00%
33919	55	$14,534,767	0.12%
33920	50	$0	0.00%
33921	58	$10,747,529	0.09%
33922	54	$1,804,544	0.02%
33924	60	$4,947,516	0.04%
33927	46	$0	0.00%
33928	59	$15,012,921	0.13%
33930	55	$175,433	0.00%
33931	62	$11,780,015	0.10%
33932	62	$35,461	0.00%
33935	48	$0	0.00%
33936	53	$7,758,985	0.07%
33938	43	$0	0.00%
33944	44	$0	0.00%
33945	54	$133,624	0.00%
33946	49	$0	0.00%
33947	48	$0	0.00%
33948	46	$0	0.00%
33949	47	$0	0.00%
33950	46	$0	0.00%
33951	45	$0	0.00%
33952	44	$0	0.00%
33953	45	$0	0.00%
33954	45	$0	0.00%

33955	50	$0	0.00%
33956	56	$2,536,721	0.02%
33957	58	$20,708,570	0.18%
33960	41	$0	0.00%
33965	59	$624	0.00%
33970	52	$986	0.00%
33971	53	$3,917,986	0.03%
33972	53	$4,185,988	0.04%
33975	48	$0	0.00%
33980	46	$0	0.00%
33981	47	$0	0.00%
33982	45	$0	0.00%
33983	46	$0	0.00%
33990	52	$200,120	0.00%
33991	54	$4,842,716	0.04%
33993	53	$2,230,273	0.02%
33994	50	$262	0.00%
34101	73	$621,620	0.01%
34102	75	$55,235,406	0.47%
34103	70	$27,686,707	0.24%
34104	75	$27,524,267	0.24%
34105	72	$27,742,308	0.24%
34106	73	$230,478	0.00%
34107	73	$65,680	0.00%
34108	68	$56,296,918	0.48%
34109	70	$38,578,624	0.33%
34110	63	$31,441,777	0.27%
34112	77	$35,813,506	0.31%
34113	82	$22,696,872	0.19%
34114	87	$25,047,924	0.21%
34116	71	$19,565,069	0.17%
34117	70	$14,126,721	0.12%
34119	68	$46,497,096	0.40%
34120	67	$19,926,460	0.17%
34133	62	$108,563	0.00%
34134	63	$43,891,433	0.38%
34135	63	$37,015,327	0.32%
34136	64	$57,536	0.00%
34137	94	$187,571	0.00%
34138	125	$1,663,679	0.01%
34139	109	$2,748,237	0.02%
34140	110	$1,783,064	0.02%
34141	102	$140,524	0.00%
34142	57	$1,090,122	0.01%
34143	58	$168,884	0.00%
34145	100	$74,777,082	0.64%
34146	98	$399,409	0.00%
34223	45	$0	0.00%
34224	47	$0	0.00%
34229	40	$0	0.00%

34231	40	$0	0.00%
34232	40	$0	0.00%
34233	40	$0	0.00%
34238	41	$0	0.00%
34239	39	$0	0.00%
34241	41	$0	0.00%
34242	41	$0	0.00%
34269	44	$0	0.00%
34272	42	$0	0.00%
34274	42	$0	0.00%
34275	42	$0	0.00%
34277	40	$0	0.00%
34284	42	$0	0.00%
34285	43	$0	0.00%
34286	44	$0	0.00%
34287	44	$0	0.00%
34288	44	$0	0.00%
34289	44	$0	0.00%
34292	44	$0	0.00%
34293	44	$0	0.00%
34295	46	$0	0.00%

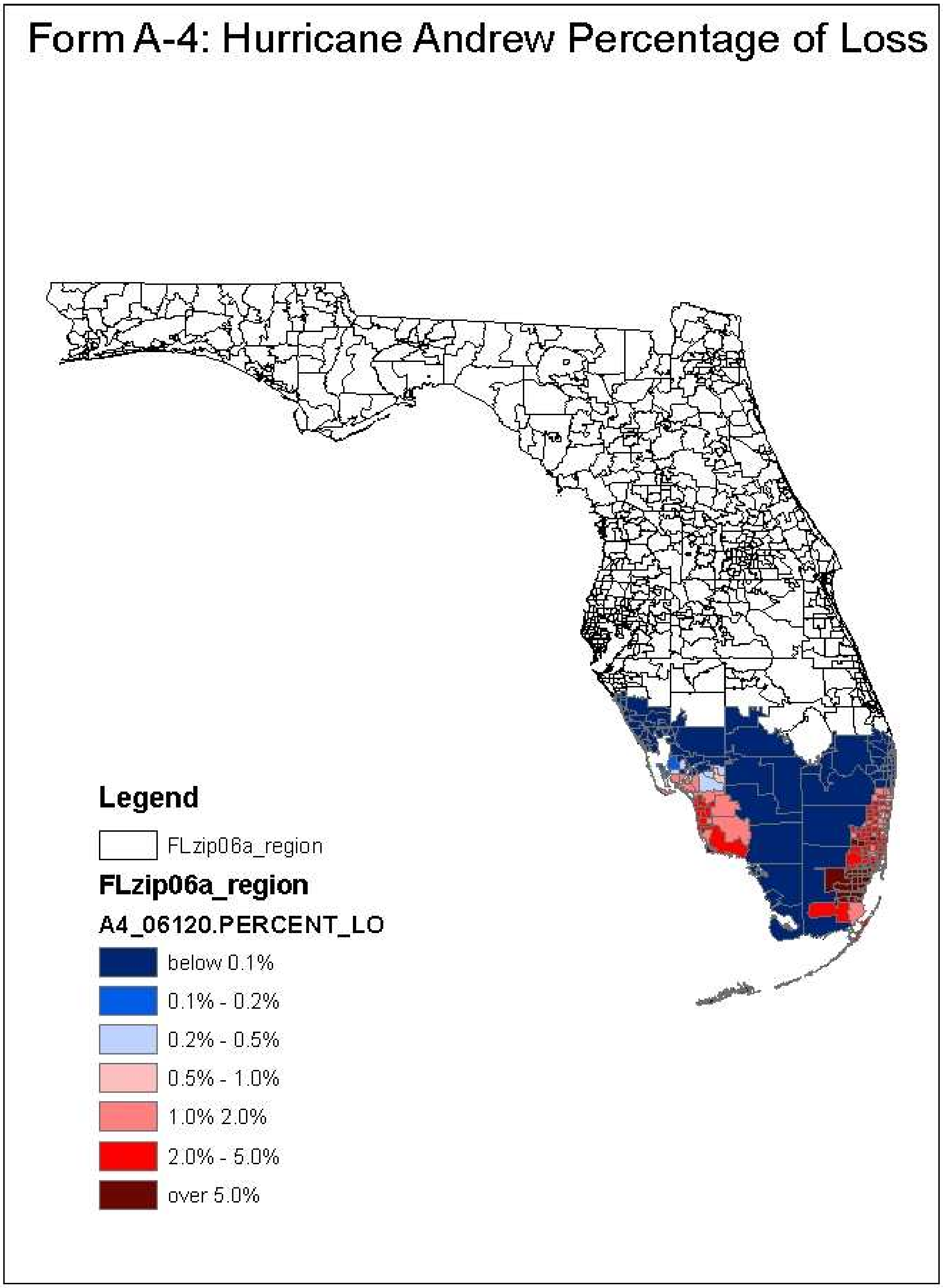


Figure 43. Map for Form A4: Hurricane Andrew Percentage of Losses

Form A-5: Distribution of Hurricanes by Size of Loss

We estimated the losses, using exposure data provided by Cat Fund, for each of the 44,020 hurricanes in the simulated stochastic set. The hurricanes were then grouped by ranges of loss size. The return period, for a given loss size, is the reciprocal of the probability of equaling or exceeding the loss size.. To smooth out the relationship between return period and loss size, the return period is defined as the mean of a geometric distribution, where the probability is based on Poisson distribution.

RangeStart (Million)	RangeEnd (Million)	TotalLoss (Million)	AveLoss (Million)	Number OfHurricanes	ExpeAnnual Loss (Million)	ReturnTime (Years)
0	500	1,790,961.21	194.16	9224	35.82	2.48
500	1000	2,388,431.59	717.68	3328	47.77	3.08
1000	1500	2,059,856.69	1,229.77	1675	41.20	3.43
1500	2000	2,107,576.30	1,736.06	1214	42.15	3.69
2000	2500	2,420,329.29	2,247.29	1077	48.41	3.93
2500	3000	2,457,746.16	2,743.02	896	49.15	4.17
3000	3500	2,717,905.10	3,251.08	836	54.36	4.42
3500	4000	3,155,718.23	3,743.44	843	63.11	4.69
4000	4500	3,415,885.91	4,248.61	804	68.32	5.00
4500	5000	3,891,281.27	4,739.68	821	77.83	5.35
5000	6000	8,477,680.23	5,494.28	1543	169.55	5.97
6000	7000	9,102,235.81	6,483.07	1404	182.04	7.01
7000	8000	8,745,461.31	7,493.97	1167	174.91	8.29
8000	9000	7,790,171.88	8,495.28	917	155.80	9.84
9000	10000	7,199,820.42	9,473.45	760	144.00	11.60
10000	11000	6,440,794.37	10,489.89	614	128.82	13.52
11000	12000	6,710,111.50	11,470.28	585	134.20	15.97
12000	13000	6,091,920.64	12,509.08	487	121.84	18.98
13000	14000	5,397,204.03	13,493.01	400	107.94	22.55
14000	15000	4,863,023.22	14,473.28	336	97.26	26.99
15000	16000	3,819,487.81	15,463.51	247	76.39	31.79
16000	17000	3,671,666.68	16,464.87	223	73.43	37.11
17000	18000	3,503,695.58	17,518.48	200	70.07	43.72
18000	19000	2,996,341.50	18,495.94	162	59.93	51.47
19000	20000	2,923,530.74	19,490.20	150	58.47	61.40
20000	21000	2,211,567.19	20,477.47	108	44.23	73.07
21000	22000	2,255,170.51	21,477.81	105	45.10	86.12
22000	23000	1,594,840.54	22,462.54	71	31.90	102.13
23000	24000	1,456,917.29	23,498.67	62	29.14	116.25
24000	25000	1,367,722.27	24,423.61	56	27.35	136.01
25000	26000	1,094,789.60	25,460.22	43	21.90	156.27
26000	27000	1,164,676.78	26,469.93	44	23.29	181.67
27000	28000	1,128,630.30	27,527.57	41	22.57	213.27
28000	29000	1,024,176.96	28,449.36	36	20.48	254.32
29000	30000	1,033,354.48	29,524.41	35	20.67	311.07
30000	35000	2,599,137.04	32,088.11	81	51.98	500.52
35000	40000	1,108,213.50	36,940.45	30	22.16	1,087.49

40000	45000	636,641.67	42,442.78	15	12.73	1,852.41
45000	50000	471,782.55	47,178.26	10	9.44	3,846.78
50000	55000	312,953.30	52,158.88	6	6.26	12,500.92
55000	60000	0.00	0.00	0	0.00	
60000	65000	61,398.36	61,398.36	1	1.23	25,001.33
65000	70000	0.00	0.00	0	0.00	
70000	75000	0.00	0.00	0	0.00	
75000	80000	0.00	0.00	0	0.00	
80000	90000	0.00	0.00	0	0.00	
90000	100000	0.00	0.00	0	0.00	
100000	Maximum	0.00	0.00	0	0.00	

Form A-6: Output Ranges

LOSS COSTS PER $1,000

Personal Residential -- Owners -- FRAME

COUNTY	LOSS COSTS	$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE APPURTENANT STRUCTURE	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	LOW	1.0653	0.1125	0.0737	0.0277	0.8858	0.4948	0.2653	0.4948	0.3055	0.1406
	HIGH	1.3227	0.1496	0.0935	0.0397	1.1477	0.6925	0.3995	0.6925	0.4540	0.2294
	WGHTD AVE	1.1751	0.1287	0.0814	0.0328	0.9962	0.5767	0.3196	0.5767	0.3657	0.1757
Baker	LOW	0.6479	0.0631	0.0428	0.0142	0.5086	0.2513	0.1230	0.2513	0.1426	0.0617
	HIGH	0.9922	0.1041	0.0679	0.0254	0.8198	0.4520	0.2396	0.4520	0.2762	0.1257
	WGHTD AVE	0.9514	0.0994	0.0649	0.0241	0.7834	0.4283	0.2259	0.4283	0.2605	0.1184
Bay	LOW	1.3351	0.1487	0.0935	0.0390	1.1477	0.6814	0.3850	0.6814	0.4394	0.2153
	HIGH	3.9559	0.7736	0.2216	0.2841	4.5640	3.8947	3.2281	3.8947	3.3876	2.6676
	WGHTD AVE	2.2424	0.3191	0.1484	0.1032	2.2194	1.6335	1.1598	1.6335	1.2613	0.8290
Bradford	LOW	1.0269	0.1076	0.0697	0.0261	0.8457	0.4631	0.2436	0.4631	0.2812	0.1270
	HIGH	1.2283	0.1375	0.0858	0.0356	1.0542	0.6233	0.3509	0.6233	0.4008	0.1961
	WGHTD AVE	1.0552	0.1114	0.0721	0.0271	0.8730	0.4822	0.2552	0.4822	0.2944	0.1337
Brevard	LOW	3.2329	0.2353	0.1162	0.0684	3.1079	2.5654	1.7213	2.5654	1.9861	0.8936
	HIGH	6.7303	0.9957	0.2364	0.3453	7.5710	6.8461	5.5539	6.8461	5.9630	4.1524
	WGHTD AVE	4.0453	0.3234	0.1454	0.0986	3.9820	3.3573	2.3362	3.3573	2.6581	1.3017
Broward	LOW	6.4789	0.7506	0.1914	0.2645	6.9528	6.2224	4.7905	6.2224	5.2510	3.2443
	HIGH	9.5429	1.5254	0.2671	0.5561	11.0770	10.2647	8.5552	10.2647	9.1065	6.5896

	WGHTD AVE	7.6019	1.0024	0.2219	0.3622	8.4216	7.6521	6.0893	7.6521	6.5930	4.3559
Calhoun	LOW	1.1140	0.1185	0.0766	0.0296	0.9295	0.5225	0.2807	0.5225	0.3232	0.1492
	HIGH	1.4011	0.1654	0.1012	0.0453	1.2368	0.7627	0.4483	0.7627	0.5062	0.2647
	WGHTD AVE	1.2460	0.1371	0.0871	0.0353	1.0631	0.6225	0.3451	0.6225	0.3957	0.1881
Charlotte	LOW	4.0674	0.3143	0.1518	0.0958	4.0067	3.3861	2.3505	3.3861	2.6776	1.2867
	HIGH	6.5275	0.9133	0.2290	0.3200	7.2702	6.5526	5.2628	6.5526	5.6712	3.8587
	WGHTD AVE	4.7711	0.4260	0.1723	0.1400	4.8265	4.1637	3.0290	4.1637	3.3879	1.8396
Citrus	LOW	2.6749	0.1633	0.0918	0.0431	2.4998	2.0289	1.3087	2.0289	1.5349	0.6080
	HIGH	3.5984	0.2593	0.1272	0.0764	3.4909	2.9227	1.9996	2.9227	2.2911	1.0606
	WGHTD AVE	3.2557	0.2188	0.1138	0.0618	3.1127	2.5780	1.7242	2.5780	1.9935	0.8695
Clay	LOW	0.9998	0.1045	0.0676	0.0253	0.8223	0.4489	0.2371	0.4489	0.2731	0.1251
	HIGH	1.3594	0.1545	0.0962	0.0409	1.1832	0.7174	0.4128	0.7174	0.4700	0.2343
	WGHTD AVE	1.1056	0.1208	0.0758	0.0308	0.9348	0.5388	0.3008	0.5388	0.3431	0.1685
Collier	LOW	4.8153	0.3641	0.1829	0.1112	4.7488	4.0264	2.7960	4.0264	3.1853	1.5180
	HIGH	6.9611	0.8451	0.2638	0.2969	7.5636	6.7621	5.2896	6.7621	5.7565	3.6687
	WGHTD AVE	5.3237	0.4778	0.2026	0.1561	5.4256	4.6970	3.4158	4.6970	3.8218	2.0524
Columbia	LOW	0.6947	0.0674	0.0453	0.0152	0.5441	0.2679	0.1320	0.2679	0.1526	0.0674
	HIGH	1.0177	0.1113	0.0701	0.0283	0.8596	0.4939	0.2734	0.4939	0.3125	0.1515
	WGHTD AVE	0.9488	0.1012	0.0649	0.0250	0.7889	0.4395	0.2366	0.4395	0.2716	0.1274
De Soto	LOW	4.0700	0.2673	0.1463	0.0763	3.9154	3.2731	2.2031	3.2731	2.5419	1.1072
	HIGH	4.5544	0.3523	0.1674	0.1095	4.5142	3.8471	2.7081	3.8471	3.0691	1.5144
	WGHTD AVE	4.2058	0.2986	0.1520	0.0889	4.0974	3.4517	2.3710	3.4517	2.7132	1.2554

Dixie	LOW	1.0761	0.1251	0.0734	0.0338	0.9378	0.5693	0.3388	0.5693	0.3809	0.2064
	HIGH	1.8856	0.2793	0.1247	0.0892	1.8726	1.3684	0.9791	1.3684	1.0605	0.7136
	WGHTD AVE	1.3019	0.1658	0.0873	0.0467	1.1888	0.7791	0.5032	0.7791	0.5562	0.3340
Duval	LOW	0.6645	0.0640	0.0434	0.0145	0.5192	0.2544	0.1253	0.2544	0.1447	0.0643
	HIGH	1.6914	0.2844	0.1015	0.0966	1.7685	1.3652	1.0636	1.3652	1.1259	0.8496
	WGHTD AVE	1.0657	0.1216	0.0731	0.0324	0.9178	0.5450	0.3200	0.5450	0.3599	0.1934
Escambia	LOW	1.6943	0.2215	0.1263	0.0680	1.6082	1.1081	0.7263	1.1081	0.8038	0.4751
	HIGH	5.0357	1.0713	0.2594	0.4024	6.0558	5.3444	4.5841	5.3444	4.7702	3.9082
	WGHTD AVE	2.8549	0.4763	0.1847	0.1679	3.0596	2.4394	1.8846	2.4394	2.0085	1.4626
Flagler	LOW	3.1617	0.2028	0.1127	0.0564	3.0110	2.4844	1.6435	2.4844	1.9086	0.8051
	HIGH	4.0768	0.3790	0.1505	0.1229	4.1409	3.5547	2.5794	3.5547	2.8869	1.5690
	WGHTD AVE	3.4836	0.2758	0.1251	0.0839	3.4142	2.8696	1.9931	2.8696	2.2688	1.1101
Franklin	LOW	1.9787	0.2882	0.1358	0.0939	1.9623	1.4302	1.0185	1.4302	1.1037	0.7381
	HIGH	3.4451	0.6968	0.1838	0.2544	3.9921	3.4062	2.8639	3.4062	2.9889	2.4178
	WGHTD AVE	2.5011	0.4274	0.1531	0.1481	2.6705	2.1137	1.6484	2.1137	1.7497	1.3028
Gadsen	LOW	0.8421	0.0857	0.0566	0.0203	0.6808	0.3588	0.1825	0.3588	0.2115	0.0926
	HIGH	1.1669	0.1278	0.0819	0.0328	0.9935	0.5797	0.3198	0.5797	0.3671	0.1732
	WGHTD AVE	0.9042	0.0942	0.0612	0.0230	0.7420	0.4035	0.2122	0.4035	0.2445	0.1117
Gilchrist	LOW	1.0022	0.1090	0.0677	0.0276	0.8417	0.4787	0.2657	0.4787	0.3029	0.1497
	HIGH	1.3395	0.1599	0.0942	0.0444	1.1964	0.7566	0.4584	0.7566	0.5157	0.2781
	WGHTD AVE	1.2387	0.1447	0.0854	0.0392	1.0894	0.6728	0.4003	0.6728	0.4515	0.2394
Glades	LOW	4.6389	0.3097	0.1675	0.0895	4.4792	3.7551	2.5443	3.7551	2.9278	1.2971
	HIGH	4.8229	0.3362	0.1746	0.0994	4.6905	3.9504	2.7037	3.9504	3.0987	1.4152

	WGHTD AVE	4.8119	0.3347	0.1743	0.0988	4.6781	3.9390	2.6944	3.9390	3.0887	1.4083
Gulf	LOW	1.4300	0.1716	0.1025	0.0483	1.2759	0.8014	0.4869	0.8014	0.5454	0.2999
	HIGH	2.0371	0.2891	0.1425	0.0920	1.9917	1.4249	0.9897	1.4249	1.0786	0.6990
	WGHTD AVE	1.9461	0.2644	0.1304	0.0838	1.8688	1.3178	0.9033	1.3178	0.9870	0.6304
Hamilton	LOW	0.6098	0.0595	0.0401	0.0135	0.4794	0.2377	0.1175	0.2377	0.1358	0.0600
	HIGH	0.8538	0.0912	0.0585	0.0227	0.7108	0.3975	0.2155	0.3975	0.2470	0.1174
	WGHTD AVE	0.7579	0.0785	0.0511	0.0190	0.6184	0.3324	0.1751	0.3324	0.2013	0.0936
Hardee	LOW	4.1243	0.2693	0.1487	0.0768	3.9650	3.3130	2.2300	3.3130	2.5729	1.1192
	HIGH	4.5023	0.3352	0.1657	0.1026	4.4348	3.7659	2.6260	3.7659	2.9873	1.4361
	WGHTD AVE	4.2089	0.2802	0.1525	0.0809	4.0619	3.4039	2.3045	3.4039	2.6527	1.1730
Hendry	LOW	4.7412	0.3298	0.1731	0.0976	4.6170	3.8947	2.6700	3.8947	3.0583	1.3999
	HIGH	5.4557	0.4326	0.2002	0.1359	5.4386	4.6552	3.2964	4.6552	3.7276	1.8674
	WGHTD AVE	5.0979	0.3790	0.1864	0.1157	5.0227	4.2713	2.9800	4.2713	3.3896	1.6291
Hernando	LOW	3.0032	0.1791	0.1052	0.0469	2.8186	2.2934	1.4807	2.2934	1.7362	0.6825
	HIGH	3.6347	0.2610	0.1307	0.0774	3.5317	2.9619	2.0292	2.9619	2.3238	1.0773
	WGHTD AVE	3.2945	0.2247	0.1170	0.0643	3.1621	2.6250	1.7657	2.6250	2.0367	0.9021
Highlands	LOW	3.9113	0.2319	0.1384	0.0616	3.6841	3.0275	1.9765	3.0275	2.3081	0.9223
	HIGH	4.6796	0.3163	0.1694	0.0921	4.5284	3.8018	2.5824	3.8018	2.9687	1.3268
	WGHTD AVE	4.2135	0.2661	0.1516	0.0741	4.0238	3.3431	2.2257	3.3431	2.5791	1.0894
Hillsborough	LOW	3.1915	0.2142	0.1141	0.0612	3.0619	2.5450	1.7101	2.5450	1.9736	0.8677
	HIGH	5.0109	0.5169	0.1853	0.1754	5.2409	4.5956	3.4648	4.5956	3.8231	2.2498
	WGHTD AVE	3.7618	0.2901	0.1366	0.0889	3.7075	3.1382	2.1908	3.1382	2.4904	1.2140

Holmes	LOW	1.2897	0.1445	0.0917	0.0384	1.1190	0.6756	0.3837	0.6756	0.4379	0.2146
	HIGH	1.6791	0.2110	0.1184	0.0626	1.5529	1.0369	0.6651	1.0369	0.7395	0.4280
	WGHTD AVE	1.3837	0.1595	0.0982	0.0437	1.2184	0.7537	0.4452	0.7537	0.5038	0.2613
Indian River	LOW	4.1958	0.3186	0.1528	0.0955	4.0980	3.4356	2.3528	3.4356	2.6943	1.2625
	HIGH	6.6378	0.9536	0.2246	0.3297	7.4113	6.6788	5.3815	6.6788	5.7920	3.9793
	WGHTD AVE	5.0216	0.4713	0.1828	0.1539	5.1168	4.4128	3.2140	4.4128	3.5931	1.9672
Jackson	LOW	0.8504	0.0845	0.0560	0.0195	0.6761	0.3440	0.1704	0.3440	0.1979	0.0853
	HIGH	1.3562	0.1549	0.0970	0.0418	1.1897	0.7317	0.4252	0.7317	0.4836	0.2429
	WGHTD AVE	1.1086	0.1183	0.0769	0.0297	0.9280	0.5250	0.2837	0.5250	0.3263	0.1515
Jefferson	LOW	0.7269	0.0761	0.0491	0.0187	0.5975	0.3261	0.1754	0.3261	0.2007	0.0962
	HIGH	0.8737	0.0972	0.0599	0.0260	0.7415	0.4417	0.2601	0.4417	0.2929	0.1568
	WGHTD AVE	0.7445	0.0786	0.0503	0.0195	0.6151	0.3392	0.1844	0.3392	0.2106	0.1022
Lafayette	LOW	0.8140	0.0875	0.0550	0.0221	0.6793	0.3818	0.2117	0.3818	0.2410	0.1200
	HIGH	0.9736	0.1084	0.0669	0.0281	0.8303	0.4855	0.2759	0.4855	0.3134	0.1585
	WGHTD AVE	0.9668	0.1076	0.0665	0.0279	0.8242	0.4813	0.2733	0.4813	0.3105	0.1570
Lake	LOW	2.5385	0.1402	0.0871	0.0341	2.3251	1.8526	1.1583	1.8526	1.3753	0.4968
	HIGH	4.4292	0.3315	0.1609	0.1011	4.3525	3.6846	2.5615	3.6846	2.9171	1.3996
	WGHTD AVE	3.5558	0.2183	0.1272	0.0595	3.3640	2.7703	1.8196	2.7703	2.1195	0.8684
Lee	LOW	4.3444	0.3311	0.1632	0.1010	4.2805	3.6237	2.5160	3.6237	2.8664	1.3686
	HIGH	6.3060	0.7625	0.2354	0.2649	6.8260	6.0849	4.7449	6.0849	5.1696	3.2804
	WGHTD AVE	5.1726	0.4454	0.1879	0.1495	5.2316	4.5246	3.2915	4.5246	3.6822	1.9834
Leon	LOW	0.6461	0.0637	0.0425	0.0147	0.5111	0.2570	0.1289	0.2570	0.1486	0.0669
	HIGH	1.0500	0.1177	0.0729	0.0307	0.9022	0.5350	0.3045	0.5350	0.3467	0.1731

	WGHTD AVE	0.8618	0.0905	0.0583	0.0225	0.7121	0.3955	0.2135	0.3955	0.2448	0.1159
Levy	LOW	0.9996	0.1104	0.0693	0.0280	0.8398	0.4744	0.2620	0.4744	0.2980	0.1487
	HIGH	1.6615	0.2172	0.1152	0.0652	1.5612	1.0655	0.7019	1.0655	0.7757	0.4709
	WGHTD AVE	1.3844	0.1695	0.0953	0.0484	1.2494	0.8054	0.5047	0.8054	0.5624	0.3221
Liberty	LOW	1.0742	0.1135	0.0735	0.0279	0.8901	0.4932	0.2606	0.4932	0.3007	0.1360
	HIGH	1.1135	0.1208	0.0774	0.0308	0.9410	0.5415	0.2997	0.5415	0.3415	0.1692
	WGHTD AVE	1.0763	0.1147	0.0739	0.0285	0.8973	0.5032	0.2699	0.5032	0.3105	0.1436
Madison	LOW	0.6253	0.0629	0.0419	0.0147	0.5012	0.2594	0.1313	0.2594	0.1520	0.0674
	HIGH	0.8310	0.0897	0.0572	0.0227	0.6969	0.3952	0.2185	0.3952	0.2494	0.1220
	WGHTD AVE	0.7791	0.0824	0.0532	0.0202	0.6446	0.3563	0.1915	0.3563	0.2197	0.1036
Manatee	LOW	3.7225	0.3053	0.1401	0.0955	3.7048	3.1484	2.2235	3.1484	2.5153	1.2651
	HIGH	5.9871	0.8256	0.2118	0.2860	6.6233	5.9384	4.7487	5.9384	5.1241	3.4643
	WGHTD AVE	4.2680	0.3959	0.1555	0.1312	4.3404	3.7510	2.7539	3.7510	3.0687	1.7072
Marion	LOW	2.0964	0.1094	0.0703	0.0245	1.8826	1.4670	0.8835	1.4670	1.0650	0.3474
	HIGH	3.6105	0.2558	0.1272	0.0747	3.4985	2.9311	1.9953	2.9311	2.2913	1.0440
	WGHTD AVE	3.1096	0.1857	0.1066	0.0488	2.9128	2.3779	1.5377	2.3779	1.8024	0.7101
Martin	LOW	5.5927	0.4913	0.1747	0.1637	5.6792	4.9384	3.5277	4.9384	3.9808	2.0621
	HIGH	9.0596	1.3742	0.2590	0.4970	10.3523	9.5170	7.7988	9.5170	8.3520	5.8713
	WGHTD AVE	6.4568	0.6819	0.1959	0.2361	6.7893	6.0202	4.5162	6.0202	4.9999	2.9146
Miami-Dade	LOW	6.0118	0.6557	0.1807	0.2300	6.3835	5.6907	4.3272	5.6907	4.7660	2.8533
	HIGH	11.9496	2.3406	0.3158	0.8529	14.5190	13.6790	11.9097	13.6790	12.4704	9.8520
	WGHTD AVE	7.9611	1.1158	0.2315	0.4093	8.9673	8.2092	6.6297	8.2092	7.1395	4.8457

Monroe	LOW	6.6051	0.6976	0.1874	0.2638	7.1082	6.4642	5.0501	6.4642	5.5102	3.4266
	HIGH	11.3428	2.0133	0.2937	0.7760	13.4577	12.6995	11.0600	12.6995	11.5921	9.0878
	WGHTD AVE	8.8130	1.3916	0.2474	0.5041	10.2120	9.5161	7.9497	9.5161	8.4591	6.1021
Nassau	LOW	0.6843	0.0700	0.0465	0.0166	0.5503	0.2852	0.1473	0.2852	0.1688	0.0793
	HIGH	0.9989	0.1178	0.0680	0.0329	0.8805	0.5456	0.3370	0.5456	0.3754	0.2144
	WGHTD AVE	0.8939	0.1002	0.0606	0.0262	0.7604	0.4419	0.2565	0.4419	0.2883	0.1546
Okaloosa	LOW	1.6289	0.2093	0.1197	0.0631	1.5241	1.0293	0.6657	1.0293	0.7380	0.4323
	HIGH	3.3588	0.5902	0.2111	0.2143	3.7118	3.0512	2.4198	3.0512	2.5656	1.9172
	WGHTD AVE	2.8121	0.4546	0.1821	0.1601	2.9815	2.3626	1.8078	2.3626	1.9320	1.3868
Okeechobee	LOW	4.2445	0.2792	0.1556	0.0781	4.0458	3.3369	2.2063	3.3369	2.5621	1.0804
	HIGH	4.5765	0.3206	0.1692	0.0935	4.4232	3.6888	2.4906	3.6888	2.8685	1.2776
	WGHTD AVE	4.5068	0.3063	0.1668	0.0877	4.3316	3.5975	2.4074	3.5975	2.7825	1.2096
Orange	LOW	3.1401	0.1802	0.1091	0.0451	2.9535	2.4057	1.5297	2.4057	1.8052	0.6727
	HIGH	4.3363	0.3153	0.1561	0.0944	4.2341	3.5684	2.4581	3.5684	2.8095	1.3167
	WGHTD AVE	3.7224	0.2283	0.1324	0.0621	3.5265	2.9086	1.9107	2.9086	2.2259	0.9095
Osceola	LOW	3.5334	0.2037	0.1238	0.0527	3.3090	2.7070	1.7484	2.7070	2.0508	0.7941
	HIGH	4.1213	0.2696	0.1471	0.0765	3.9536	3.2952	2.2107	3.2952	2.5538	1.1064
	WGHTD AVE	3.7800	0.2287	0.1327	0.0612	3.5731	2.9463	1.9321	2.9463	2.2526	0.9117
Palm Beach	LOW	5.8206	0.5762	0.1783	0.1962	6.0379	5.3052	3.9012	5.3052	4.3521	2.4306
	HIGH	10.0862	1.6153	0.2848	0.5866	11.6943	10.8179	8.9799	10.8179	9.5723	6.8918
	WGHTD AVE	7.0084	0.8240	0.2153	0.3022	7.5695	6.7894	5.2454	6.7894	5.7421	3.5814
Pasco	LOW	3.0775	0.1945	0.1104	0.0513	2.9483	2.4349	1.6254	2.4349	1.8797	0.7582
	HIGH	3.8923	0.2908	0.1408	0.0897	3.8042	3.2063	2.2145	3.2063	2.5281	1.1941

	WGHTD AVE	3.5029	0.2512	0.1272	0.0740	3.3985	2.8418	1.9357	2.8418	2.2216	1.0172
Pinellas	LOW	3.2659	0.2451	0.1211	0.0731	3.1888	2.6710	1.8321	2.6710	2.0963	0.9789
	HIGH	6.4579	1.0052	0.2280	0.3551	7.3654	6.6960	5.5168	6.6960	5.8889	4.2277
	WGHTD AVE	3.8975	0.3578	0.1441	0.1158	3.9467	3.3844	2.4510	3.3844	2.7453	1.4866
Polk	LOW	3.5786	0.2093	0.1267	0.0543	3.3709	2.7658	1.7975	2.7658	2.1031	0.8198
	HIGH	4.9308	0.3893	0.1816	0.1220	4.9090	4.1967	2.9692	4.1967	3.3585	1.6796
	WGHTD AVE	4.0206	0.2606	0.1450	0.0739	3.8552	3.2130	2.1546	3.2130	2.4893	1.0746
Putnam	LOW	1.1615	0.1245	0.0806	0.0308	0.9724	0.5497	0.2945	0.5497	0.3397	0.1543
	HIGH	1.4512	0.1704	0.1036	0.0469	1.2920	0.8141	0.4869	0.8141	0.5504	0.2880
	WGHTD AVE	1.3594	0.1547	0.0961	0.0412	1.1858	0.7223	0.4181	0.7223	0.4755	0.2388
St. Johns	LOW	1.0133	0.1093	0.0684	0.0276	0.8481	0.4799	0.2665	0.4799	0.3036	0.1506
	HIGH	1.7944	0.2517	0.1211	0.0801	1.7514	1.2577	0.8815	1.2577	0.9600	0.6256
	WGHTD AVE	1.3965	0.1803	0.0951	0.0534	1.2882	0.8552	0.5618	0.8552	0.6180	0.3801
St. Lucie	LOW	5.1127	0.4189	0.1607	0.1366	5.1236	4.4208	3.1010	4.4208	3.5244	1.7430
	HIGH	6.9365	0.8150	0.2085	0.2870	7.4672	6.6897	5.1480	6.6897	5.6441	3.4823
	WGHTD AVE	5.9529	0.5751	0.1840	0.1961	6.1563	5.4089	3.9642	5.4089	4.4286	2.4426
Santa Rosa	LOW	1.6524	0.2023	0.1200	0.0590	1.5193	1.0068	0.6299	1.0068	0.7061	0.3886
	HIGH	3.4991	0.6255	0.2168	0.2285	3.8985	3.2289	2.5827	3.2289	2.7329	2.0623
	WGHTD AVE	2.6610	0.4244	0.1730	0.1466	2.7924	2.1872	1.6574	2.1872	1.7746	1.2618
Sarasota	LOW	3.5906	0.2936	0.1342	0.0915	3.5655	3.0231	2.1276	3.0231	2.4100	1.2060
	HIGH	4.6637	0.4333	0.1756	0.1415	4.7636	4.1151	2.9993	4.1151	3.3523	1.8258
	WGHTD AVE	4.1563	0.3664	0.1572	0.1179	4.1992	3.6019	2.5903	3.6019	2.9098	1.5344

Seminole	LOW	3.2791	0.1958	0.1175	0.0508	3.0623	2.4837	1.5891	2.4837	1.8700	0.7166
	HIGH	3.7314	0.2596	0.1356	0.0746	3.5854	2.9720	1.9910	2.9720	2.2998	1.0104
	WGHTD AVE	3.4720	0.2129	0.1254	0.0566	3.2648	2.6648	1.7231	2.6648	2.0192	0.7962
Sumter	LOW	3.1819	0.1860	0.1106	0.0481	2.9719	2.4196	1.5577	2.4196	1.8290	0.7092
	HIGH	3.7381	0.2416	0.1332	0.0677	3.5695	2.9622	1.9741	2.9622	2.2863	0.9766
	WGHTD AVE	3.3809	0.2048	0.1191	0.0550	3.1824	2.6118	1.7057	2.6118	1.9913	0.8048
Suwanee	LOW	0.6769	0.0677	0.0451	0.0157	0.5401	0.2769	0.1396	0.2769	0.1615	0.0717
	HIGH	1.1628	0.1341	0.0804	0.0361	1.0155	0.6194	0.3655	0.6194	0.4127	0.2171
	WGHTD AVE	0.8131	0.0856	0.0551	0.0211	0.6707	0.3694	0.1995	0.3694	0.2284	0.1095
Taylor	LOW	0.8014	0.0866	0.0547	0.0220	0.6720	0.3812	0.2119	0.3812	0.2415	0.1195
	HIGH	1.2871	0.1656	0.0886	0.0484	1.1792	0.7707	0.4990	0.7707	0.5499	0.3345
	WGHTD AVE	1.0272	0.1228	0.0704	0.0345	0.9127	0.5745	0.3577	0.5745	0.3981	0.2286
Union	LOW	0.8028	0.0798	0.0529	0.0183	0.6377	0.3239	0.1616	0.3239	0.1871	0.0821
	HIGH	1.0955	0.1183	0.0760	0.0294	0.9193	0.5216	0.2815	0.5216	0.3240	0.1497
	WGHTD AVE	1.0724	0.1155	0.0742	0.0286	0.8978	0.5063	0.2722	0.5063	0.3134	0.1445
Volusia	LOW	2.6570	0.1505	0.0924	0.0377	2.4537	1.9721	1.2490	1.9721	1.4756	0.5521
	HIGH	4.5874	0.4683	0.1641	0.1561	4.7357	4.1219	3.0637	4.1219	3.3939	1.9883
	WGHTD AVE	3.5442	0.2457	0.1256	0.0712	3.4125	2.8447	1.9243	2.8447	2.2147	0.9953
Wakulla	LOW	0.8499	0.0910	0.0583	0.0228	0.7096	0.3990	0.2186	0.3990	0.2500	0.1207
	HIGH	1.6639	0.2302	0.1143	0.0728	1.6172	1.1551	0.8013	1.1551	0.8753	0.5608
	WGHTD AVE	1.0250	0.1126	0.0649	0.0312	0.8807	0.5393	0.3251	0.5393	0.3647	0.2001
Walton	LOW	1.4463	0.1700	0.1046	0.0477	1.2991	0.8287	0.5005	0.8287	0.5658	0.2956
	HIGH	3.3941	0.5843	0.2118	0.2111	3.7280	3.0565	2.4098	3.0565	2.5616	1.8917

	WGHTD AVE	2.2015	0.3283	0.1464	0.1082	2.2132	1.6396	1.1787	1.6396	1.2765	0.8558
Washington	**LOW**	1.2654	0.1415	0.0880	0.0373	1.0877	0.6456	0.3685	0.6456	0.4190	0.2103
	HIGH	2.1426	0.3099	0.1491	0.1004	2.1219	1.5439	1.0882	1.5439	1.1828	0.7778
	WGHTD AVE	1.5988	0.1980	0.1137	0.0578	1.4667	0.9663	0.6084	0.9663	0.6796	0.3830
STATEWIDE	**LOW**	0.6098	0.0595	0.0401	0.0135	0.4794	0.2377	0.1175	0.2377	0.1358	0.0600
	HIGH	11.9496	2.3406	0.3158	0.8529	14.5190	13.6790	11.9097	13.6790	12.4704	9.8520
	WGHTD AVE	3.2994	0.3177	0.1356	0.1060	3.2614	2.7048	1.9469	2.7048	2.1701	1.2148

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL -Owners -- MASONRY

COUNTY	LOSS COSTS	0% DEDUCTIBLE STRUCTURE	0% DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE APPURTENANT STRUCTURE	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	LOW	1.0308	0.1107	0.0737	0.0270	0.8499	0.4601	0.2409	0.4601	0.2761	0.1287
	HIGH	1.2689	0.1456	0.0935	0.0381	1.0899	0.6361	0.3565	0.6361	0.4045	0.2036
	WGHTD AVE	1.1230	0.1246	0.0806	0.0313	0.9417	0.5262	0.2832	0.5262	0.3234	0.1556
Baker	LOW	0.6339	0.0628	0.0428	0.0141	0.4947	0.2380	0.1147	0.2380	0.1319	0.0593
	HIGH	0.9614	0.1025	0.0679	0.0248	0.7879	0.4212	0.2181	0.4212	0.2503	0.1157
	WGHTD AVE	0.9255	0.0985	0.0651	0.0236	0.7564	0.4012	0.2069	0.4012	0.2374	0.1097
Bay	LOW	1.2833	0.1450	0.0935	0.0376	1.0925	0.6276	0.3451	0.6276	0.3931	0.1927
	HIGH	3.5270	0.6518	0.2216	0.2421	3.9751	3.3095	2.6735	3.3095	2.8194	2.1583
	WGHTD AVE	2.0314	0.2829	0.1469	0.0893	1.9661	1.3879	0.9461	1.3879	1.0344	0.6554
Bradford	LOW	0.9957	0.1062	0.0697	0.0256	0.8137	0.4322	0.2223	0.4322	0.2553	0.1174
	HIGH	1.1814	0.1343	0.0858	0.0344	1.0043	0.5749	0.3152	0.5749	0.3589	0.1759
	WGHTD AVE	1.0255	0.1102	0.0724	0.0267	0.8421	0.4517	0.2338	0.4517	0.2685	0.1240
Brevard	LOW	2.8730	0.2023	0.1162	0.0559	2.7053	2.1656	1.4179	2.1656	1.6476	0.7039
	HIGH	5.6314	0.7331	0.2364	0.2541	6.1235	5.4039	4.2487	5.4039	4.6083	3.0316
	WGHTD AVE	3.5796	0.2756	0.1466	0.0810	3.4563	2.8347	1.9264	2.8347	2.2072	1.0310
Broward	LOW	4.9005	0.4506	0.1914	0.1518	4.9763	4.2604	3.0852	4.2604	3.4547	1.8776
	HIGH	6.8793	0.8606	0.2671	0.3128	7.5237	6.7297	5.3191	6.7297	5.7649	3.7839

	WGHTD AVE	5.5941	0.5717	0.2195	0.1990	5.8308	5.0782	3.7959	5.0782	4.2003	2.4467
Calhoun	LOW	1.0773	0.1165	0.0766	0.0288	0.8913	0.4854	0.2547	0.4854	0.2919	0.1364
	HIGH	1.3395	0.1602	0.1012	0.0432	1.1696	0.6973	0.3977	0.6973	0.4487	0.2334
	WGHTD AVE	1.2015	0.1344	0.0872	0.0342	1.0159	0.5762	0.3113	0.5762	0.3559	0.1700
Charlotte	LOW	3.5776	0.2640	0.1518	0.0767	3.4508	2.8337	1.9143	2.8337	2.1990	0.9975
	HIGH	5.4531	0.6760	0.2290	0.2360	5.8802	5.1682	4.0173	5.1682	4.3754	2.8023
	WGHTD AVE	3.9509	0.3187	0.1700	0.0972	3.8837	3.2322	2.2421	3.2322	2.5492	1.2409
Citrus	LOW	2.3992	0.1478	0.0918	0.0371	2.2049	1.7362	1.0994	1.7362	1.2953	0.4970
	HIGH	3.1798	0.2218	0.1272	0.0621	3.0236	2.4586	1.6404	2.4586	1.8937	0.8330
	WGHTD AVE	2.9268	0.1945	0.1152	0.0524	2.7505	2.2144	1.4505	2.2144	1.6868	0.7066
Clay	LOW	0.9695	0.1030	0.0676	0.0248	0.7914	0.4189	0.2165	0.4189	0.2480	0.1154
	HIGH	1.3033	0.1502	0.0962	0.0393	1.1228	0.6588	0.3685	0.6588	0.4189	0.2082
	WGHTD AVE	1.0803	0.1202	0.0771	0.0305	0.9073	0.5090	0.2779	0.5090	0.3160	0.1563
Collier	LOW	4.2318	0.3071	0.1829	0.0889	4.0902	3.3719	2.2794	3.3719	2.6185	1.1785
	HIGH	5.8421	0.6373	0.2638	0.2206	6.1669	5.3717	4.0607	5.3717	4.4687	2.6656
	WGHTD AVE	4.5971	0.3823	0.2011	0.1201	4.5712	3.8491	2.7135	3.8491	3.0666	1.5430
Columbia	LOW	0.6797	0.0670	0.0453	0.0151	0.5293	0.2537	0.1229	0.2537	0.1410	0.0646
	HIGH	0.9819	0.1090	0.0701	0.0274	0.8218	0.4571	0.2466	0.4571	0.2810	0.1371
	WGHTD AVE	0.9188	0.0995	0.0650	0.0245	0.7576	0.4092	0.2151	0.4092	0.2459	0.1168
De Soto	LOW	3.6054	0.2344	0.1463	0.0632	3.4083	2.7695	1.8216	2.7695	2.1162	0.8803
	HIGH	3.9793	0.2941	0.1674	0.0869	3.8623	3.1992	2.1890	3.1992	2.5032	1.1642
	WGHTD AVE	3.7367	0.2610	0.1540	0.0740	3.5803	2.9356	1.9714	2.9356	2.2709	1.0050

Dixie	LOW	1.0317	0.1208	0.0734	0.0322	0.8887	0.5214	0.3014	0.5214	0.3386	0.1820
	HIGH	1.7533	0.2522	0.1247	0.0799	1.7060	1.2040	0.8336	1.2040	0.9063	0.5930
	WGHTD AVE	1.1605	0.1413	0.0826	0.0389	1.0240	0.6278	0.3791	0.6278	0.4227	0.2382
Duval	LOW	0.6504	0.0637	0.0434	0.0144	0.5053	0.2411	0.1168	0.2411	0.1340	0.0616
	HIGH	1.5479	0.2475	0.1015	0.0838	1.5770	1.1753	0.8869	1.1753	0.9432	0.6915
	WGHTD AVE	1.0182	0.1164	0.0727	0.0304	0.8650	0.4944	0.2802	0.4944	0.3153	0.1668
Escambia	LOW	1.5915	0.2093	0.1263	0.0631	1.4905	0.9929	0.6301	0.9929	0.6986	0.4048
	HIGH	4.4140	0.8842	0.2594	0.3379	5.1871	4.4800	3.7528	4.4800	3.9242	3.1284
	WGHTD AVE	2.6587	0.4390	0.1871	0.1529	2.8137	2.1935	1.6585	2.1935	1.7721	1.2671
Flagler	LOW	2.8118	0.1796	0.1127	0.0472	2.6324	2.1084	1.3646	2.1084	1.5944	0.6445
	HIGH	3.5375	0.3040	0.1505	0.0950	3.5022	2.9195	2.0530	2.9195	2.3209	1.1820
	WGHTD AVE	2.9921	0.2221	0.1238	0.0637	2.8606	2.3246	1.5598	2.3246	1.7955	0.8146
Franklin	LOW	1.8389	0.2640	0.1358	0.0850	1.7918	1.2622	0.8702	1.2622	0.9460	0.6171
	HIGH	3.0551	0.5781	0.1838	0.2136	3.4458	2.8629	2.3441	2.8629	2.4584	1.9332
	WGHTD AVE	2.3625	0.4016	0.1586	0.1394	2.5067	1.9517	1.5015	1.9517	1.5949	1.1768
Gadsen	LOW	0.8195	0.0849	0.0566	0.0200	0.6579	0.3369	0.1680	0.3369	0.1934	0.0871
	HIGH	1.1240	0.1252	0.0819	0.0318	0.9484	0.5359	0.2882	0.5359	0.3297	0.1565
	WGHTD AVE	0.8741	0.0924	0.0610	0.0224	0.7113	0.3748	0.1926	0.3748	0.2209	0.1027
Gilchrist	LOW	0.9681	0.1067	0.0677	0.0268	0.8053	0.4435	0.2400	0.4435	0.2727	0.1354
	HIGH	1.2771	0.1538	0.0942	0.0421	1.1272	0.6892	0.4052	0.6892	0.4558	0.2430
	WGHTD AVE	1.1892	0.1403	0.0856	0.0376	1.0344	0.6184	0.3576	0.6184	0.4030	0.2120
Glades	LOW	4.1026	0.2700	0.1675	0.0737	3.8913	3.1712	2.0981	3.1712	2.4315	1.0265
	HIGH	4.2505	0.2893	0.1746	0.0809	4.0569	3.3209	2.2161	3.3209	2.5596	1.1097

	WGHTD AVE	4.2465	0.2888	0.1744	0.0807	4.0523	3.3167	2.2128	3.3167	2.5560	1.1074
Gulf	LOW	1.3633	0.1651	0.1025	0.0457	1.2017	0.7291	0.4293	0.7291	0.4808	0.2616
	HIGH	1.8998	0.2662	0.1425	0.0835	1.8257	1.2613	0.8473	1.2613	0.9263	0.5855
	WGHTD AVE	1.7657	0.2383	0.1310	0.0723	1.6617	1.1214	0.7374	1.1214	0.8092	0.5003
Hamilton	LOW	0.5964	0.0592	0.0401	0.0134	0.4660	0.2250	0.1094	0.2250	0.1255	0.0574
	HIGH	0.8261	0.0896	0.0585	0.0221	0.6819	0.3694	0.1955	0.3694	0.2232	0.1071
	WGHTD AVE	0.7495	0.0790	0.0521	0.0191	0.6079	0.3184	0.1645	0.3184	0.1881	0.0891
Hardee	LOW	3.6534	0.2364	0.1487	0.0637	3.4516	2.8032	1.8437	2.8032	2.1416	0.8896
	HIGH	3.9433	0.2826	0.1657	0.0821	3.8067	3.1417	2.1313	3.1417	2.4456	1.1100
	WGHTD AVE	3.7127	0.2426	0.1518	0.0661	3.5160	2.8620	1.8895	2.8620	2.1916	0.9200
Hendry	LOW	4.1762	0.2836	0.1731	0.0794	3.9918	3.2737	2.1879	3.2737	2.5256	1.0972
	HIGH	4.7546	0.3585	0.2002	0.1073	4.6397	3.8610	2.6562	3.8610	3.0313	1.4294
	WGHTD AVE	4.5487	0.3303	0.1894	0.0963	4.4036	3.6479	2.4862	3.6479	2.8478	1.3076
Hernando	LOW	2.6854	0.1631	0.1052	0.0405	2.4857	1.9646	1.2457	1.9646	1.4671	0.5594
	HIGH	3.2058	0.2231	0.1307	0.0628	3.0534	2.4868	1.6605	2.4868	1.9164	0.8428
	WGHTD AVE	2.9969	0.2055	0.1206	0.0570	2.8383	2.2984	1.5234	2.2984	1.7631	0.7633
Highlands	LOW	3.4963	0.2105	0.1384	0.0529	3.2423	2.5890	1.6585	2.5890	1.9463	0.7524
	HIGH	4.1333	0.2747	0.1694	0.0756	3.9280	3.2055	2.1248	3.2055	2.4607	1.0467
	WGHTD AVE	3.7356	0.2349	0.1510	0.0617	3.5054	2.8294	1.8419	2.8294	2.1482	0.8679
Hillsborough	LOW	2.8299	0.1870	0.1141	0.0506	2.6653	2.1510	1.4120	2.1510	1.6406	0.6882
	HIGH	4.2751	0.4024	0.1853	0.1329	4.3527	3.7120	2.7076	3.7120	3.0199	1.6643
	WGHTD AVE	3.2946	0.2401	0.1365	0.0697	3.1716	2.6039	1.7627	2.6039	2.0235	0.9230

Holmes	LOW	1.2370	0.1407	0.0917	0.0369	1.0624	0.6208	0.3436	0.6208	0.3913	0.1917
	HIGH	1.5880	0.2004	0.1184	0.0586	1.4494	0.9354	0.5815	0.9354	0.6475	0.3682
	WGHTD AVE	1.3159	0.1531	0.0971	0.0414	1.1438	0.6818	0.3898	0.6818	0.4410	0.2261
Indian River	LOW	3.7050	0.2698	0.1528	0.0769	3.5435	2.8848	1.9248	2.8848	2.2215	0.9846
	HIGH	5.5687	0.7040	0.2246	0.2430	6.0110	5.2837	4.1247	5.2837	4.4851	2.9075
	WGHTD AVE	4.4324	0.3882	0.1816	0.1220	4.4071	3.7031	2.6270	3.7031	2.9609	1.5374
Jackson	LOW	0.8302	0.0841	0.0560	0.0194	0.6561	0.3249	0.1583	0.3249	0.1825	0.0815
	HIGH	1.2977	0.1503	0.0970	0.0401	1.1266	0.6703	0.3786	0.6703	0.4300	0.2149
	WGHTD AVE	1.0656	0.1147	0.0762	0.0284	0.8808	0.4804	0.2519	0.4804	0.2889	0.1347
Jefferson	LOW	0.7050	0.0749	0.0491	0.0182	0.5746	0.3040	0.1596	0.3040	0.1820	0.0882
	HIGH	0.8423	0.0940	0.0599	0.0248	0.7067	0.4053	0.2319	0.4053	0.2608	0.1386
	WGHTD AVE	0.7158	0.0764	0.0498	0.0187	0.5852	0.3116	0.1647	0.3116	0.1876	0.0915
Lafayette	LOW	0.7871	0.0855	0.0550	0.0214	0.6506	0.3541	0.1913	0.3541	0.2170	0.1086
	HIGH	0.9375	0.1056	0.0669	0.0271	0.7915	0.4478	0.2476	0.4478	0.2806	0.1419
	WGHTD AVE	0.9341	0.1052	0.0667	0.0270	0.7887	0.4459	0.2465	0.4459	0.2793	0.1412
Lake	LOW	2.2939	0.1312	0.0871	0.0306	2.0701	1.5996	0.9863	1.5996	1.1740	0.4178
	HIGH	3.8841	0.2795	0.1609	0.0809	3.7391	3.0751	2.0801	3.0751	2.3890	1.0825
	WGHTD AVE	3.3734	0.2144	0.1355	0.0566	3.1600	2.5432	1.6543	2.5432	1.9295	0.7842
Lee	LOW	3.8210	0.2790	0.1632	0.0808	3.6886	3.0354	2.0518	3.0354	2.3568	1.0630
	HIGH	5.3161	0.5767	0.2354	0.1971	5.5881	4.8526	3.6592	4.8526	4.0304	2.3969
	WGHTD AVE	4.2578	0.3328	0.1842	0.1009	4.1779	3.4836	2.4113	3.4836	2.7445	1.3169
Leon	LOW	0.6312	0.0633	0.0425	0.0145	0.4959	0.2425	0.1194	0.2425	0.1370	0.0634
	HIGH	1.0095	0.1146	0.0729	0.0296	0.8587	0.4926	0.2730	0.4926	0.3100	0.1548

	WGHTD AVE	0.8357	0.0891	0.0585	0.0219	0.6850	0.3691	0.1947	0.3691	0.2224	0.1066
Levy	LOW	0.9657	0.1080	0.0693	0.0271	0.8036	0.4393	0.2363	0.4393	0.2676	0.1346
	HIGH	1.5662	0.2044	0.1152	0.0606	1.4506	0.9569	0.6111	0.9569	0.6765	0.3990
	WGHTD AVE	1.2986	0.1584	0.0955	0.0435	1.1498	0.7055	0.4202	0.7055	0.4706	0.2579
Liberty	LOW	1.0372	0.1119	0.0735	0.0273	0.8553	0.4597	0.2374	0.4597	0.2727	0.1254
	HIGH	1.0742	0.1185	0.0774	0.0299	0.8996	0.5015	0.2693	0.5015	0.3065	0.1519
	WGHTD AVE	1.0410	0.1128	0.0738	0.0279	0.8603	0.4675	0.2447	0.4675	0.2805	0.1313
Madison	LOW	0.6095	0.0624	0.0419	0.0145	0.4853	0.2440	0.1213	0.2440	0.1394	0.0635
	HIGH	0.8028	0.0878	0.0572	0.0220	0.6671	0.3664	0.1974	0.3664	0.2246	0.1105
	WGHTD AVE	0.7538	0.0810	0.0531	0.0197	0.6185	0.3313	0.1739	0.3313	0.1986	0.0949
Manatee	LOW	3.2591	0.2522	0.1401	0.0753	3.1714	2.6181	1.7964	2.6181	2.0507	0.9706
	HIGH	5.0280	0.6129	0.2118	0.2110	5.3815	4.7015	3.6400	4.7015	3.9689	2.5285
	WGHTD AVE	3.6013	0.3055	0.1541	0.0955	3.5665	2.9851	2.1073	2.9851	2.3791	1.2157
Marion	LOW	1.9091	0.1051	0.0703	0.0229	1.6911	1.2773	0.7627	1.2773	0.9192	0.3018
	HIGH	3.1920	0.2199	0.1272	0.0611	3.0337	2.4694	1.6403	2.4694	1.8976	0.8225
	WGHTD AVE	2.7745	0.1678	0.1071	0.0418	2.5573	2.0268	1.2862	2.0268	1.5148	0.5778
Martin	LOW	4.4082	0.3241	0.1747	0.0985	4.2758	3.5486	2.3914	3.5486	2.7541	1.2432
	HIGH	6.6276	0.7894	0.2590	0.2828	7.1392	6.3218	4.9023	6.3218	5.3500	3.3922
	WGHTD AVE	4.9344	0.4190	0.1956	0.1362	4.9258	4.1725	2.9401	4.1725	3.3273	1.6913
Miami-Dade	LOW	4.5653	0.3976	0.1807	0.1318	4.5944	3.9153	2.7977	3.9153	3.1491	1.6491
	HIGH	8.4272	1.3222	0.3158	0.4905	9.7019	8.9133	7.4643	8.9133	7.9233	5.8379
	WGHTD AVE	5.7832	0.6219	0.2242	0.2198	6.1054	5.3667	4.0758	5.3667	4.4836	2.6969

Monroe	**LOW**	6.3758	0.6366	0.1874	0.2432	6.7974	6.1535	4.7079	6.1535	5.1791	3.0621
	HIGH	10.4750	1.6574	0.2937	0.6544	12.1878	11.4018	9.5812	11.4018	10.1611	7.5894
	WGHTD AVE	9.1421	1.3476	0.2644	0.5145	10.5252	9.7928	8.0993	9.7928	8.6510	6.1011
Nassau	**LOW**	0.6665	0.0692	0.0465	0.0163	0.5321	0.2675	0.1352	0.2675	0.1540	0.0740
	HIGH	0.9547	0.1128	0.0680	0.0311	0.8307	0.4968	0.2975	0.4968	0.3315	0.1869
	WGHTD AVE	0.8381	0.0928	0.0588	0.0234	0.6979	0.3857	0.2134	0.3857	0.2405	0.1256
Okaloosa	**LOW**	1.5356	0.1984	0.1197	0.0588	1.4176	0.9249	0.5791	0.9249	0.6430	0.3699
	HIGH	3.0306	0.5209	0.2111	0.1893	3.2933	2.6364	2.0352	2.6364	2.1672	1.5774
	WGHTD AVE	2.5218	0.4025	0.1818	0.1394	2.6290	2.0156	1.4922	2.0156	1.6027	1.1151
Okeechobee	**LOW**	3.7867	0.2466	0.1556	0.0652	3.5461	2.8407	1.8384	2.8407	2.1476	0.8677
	HIGH	4.0577	0.2773	0.1692	0.0765	3.8480	3.1177	2.0549	3.1177	2.3835	1.0094
	WGHTD AVE	4.0030	0.2665	0.1661	0.0721	3.7748	3.0446	1.9898	3.0446	2.3157	0.9584
Orange	**LOW**	2.8065	0.1673	0.1091	0.0400	2.5943	2.0542	1.2978	2.0542	1.5365	0.5611
	HIGH	3.8159	0.2683	0.1561	0.0763	3.6525	2.9906	2.0069	2.9906	2.3122	1.0263
	WGHTD AVE	3.2929	0.2025	0.1303	0.0517	3.0645	2.4528	1.5760	2.4528	1.8474	0.7233
Osceola	**LOW**	3.1677	0.1870	0.1238	0.0460	2.9230	2.3238	1.4753	2.3238	1.7377	0.6549
	HIGH	3.6554	0.2368	0.1471	0.0636	3.4457	2.7906	1.8301	2.7906	2.1281	0.8813
	WGHTD AVE	3.4182	0.2104	0.1355	0.0537	3.1886	2.5593	1.6494	2.5593	1.9314	0.7587
Palm Beach	**LOW**	4.5331	0.3675	0.1783	0.1162	4.4746	3.7555	2.6021	3.7555	2.9639	1.4464
	HIGH	7.3176	0.9218	0.2848	0.3337	7.9987	7.1420	5.6223	7.1420	6.1023	3.9862
	WGHTD AVE	5.2974	0.5038	0.2078	0.1710	5.4107	4.6499	3.3865	4.6499	3.7838	2.0908
Pasco	**LOW**	2.7399	0.1769	0.1104	0.0442	2.5749	2.0639	1.3464	2.0639	1.5673	0.6204
	HIGH	3.4247	0.2424	0.1408	0.0713	3.2788	2.6843	1.8055	2.6843	2.0779	0.9289

	WGHTD AVE	3.0432	0.2144	0.1254	0.0602	2.8980	2.3525	1.5639	2.3525	1.8077	0.7893
Pinellas	LOW	2.8824	0.2084	0.1211	0.0591	2.7556	2.2407	1.4966	2.2407	1.7264	0.7655
	HIGH	5.3517	0.7321	0.2280	0.2600	5.8921	5.2280	4.1728	5.2280	4.5002	3.0536
	WGHTD AVE	3.2921	0.2711	0.1397	0.0826	3.2280	2.6765	1.8618	2.6765	2.1136	1.0478
Polk	LOW	3.1881	0.1912	0.1267	0.0473	2.9711	2.3691	1.5118	2.3691	1.7771	0.6753
	HIGH	4.2992	0.3230	0.1816	0.0964	4.1900	3.4819	2.3935	3.4819	2.7321	1.2863
	WGHTD AVE	3.5676	0.2292	0.1451	0.0613	3.3613	2.7218	1.7835	2.7218	2.0745	0.8551
Putnam	LOW	1.1227	0.1225	0.0806	0.0300	0.9322	0.5107	0.2671	0.5107	0.3069	0.1413
	HIGH	1.3843	0.1644	0.1036	0.0447	1.2188	0.7425	0.4314	0.7425	0.4873	0.2526
	WGHTD AVE	1.3096	0.1512	0.0966	0.0400	1.1319	0.6688	0.3775	0.6688	0.4286	0.2151
St. Johns	LOW	0.9792	0.1069	0.0684	0.0267	0.8117	0.4446	0.2405	0.4446	0.2732	0.1361
	HIGH	1.6758	0.2325	0.1211	0.0732	1.6090	1.1171	0.7593	1.1171	0.8292	0.5275
	WGHTD AVE	1.3766	0.1793	0.0993	0.0531	1.2632	0.8212	0.5290	0.8212	0.5818	0.3548
St. Lucie	LOW	4.0715	0.2846	0.1607	0.0839	3.9080	3.2177	2.1352	3.2177	2.4741	1.0700
	HIGH	5.2592	0.4919	0.2085	0.1657	5.3609	4.5987	3.3303	4.5987	3.7293	2.0266
	WGHTD AVE	4.5673	0.3588	0.1815	0.1126	4.4895	3.7612	2.5872	3.7612	2.9556	1.4104
Santa Rosa	LOW	1.5645	0.1933	0.1200	0.0555	1.4210	0.9106	0.5525	0.9106	0.6199	0.3357
	HIGH	3.1478	0.5485	0.2168	0.2008	3.4465	2.7808	2.1653	2.7808	2.3015	1.6908
	WGHTD AVE	2.5284	0.4036	0.1769	0.1346	2.6271	2.0173	1.4997	2.0173	1.6087	1.1268
Sarasota	LOW	3.1468	0.2430	0.1342	0.0722	3.0549	2.5156	1.7204	2.5156	1.9662	0.9260
	HIGH	4.0346	0.3466	0.1756	0.1091	4.0196	3.3752	2.3838	3.3752	2.6913	1.3729
	WGHTD AVE	3.6488	0.3015	0.1587	0.0931	3.6031	3.0051	2.0987	3.0051	2.3795	1.1808

Seminole	**LOW**	2.9534	0.1790	0.1175	0.0441	2.7158	2.1400	1.3470	2.1400	1.5910	0.5938
	HIGH	3.3189	0.2257	0.1356	0.0615	3.1291	2.5187	1.6486	2.5187	1.9171	0.8028
	WGHTD AVE	3.1225	0.1931	0.1255	0.0486	2.8895	2.2916	1.4555	2.2916	1.7130	0.6546
Sumter	**LOW**	2.8555	0.1703	0.1106	0.0419	2.6263	2.0766	1.3141	2.0766	1.5494	0.5847
	HIGH	3.3218	0.2133	0.1332	0.0566	3.1168	2.5128	1.6380	2.5128	1.9091	0.7809
	WGHTD AVE	3.0981	0.1926	0.1227	0.0498	2.8823	2.3056	1.4847	2.3056	1.7386	0.6886
Suwanee	**LOW**	0.6602	0.0671	0.0451	0.0155	0.5233	0.2607	0.1291	0.2607	0.1482	0.0677
	HIGH	1.1139	0.1297	0.0804	0.0345	0.9620	0.5673	0.3252	0.5673	0.3669	0.1918
	WGHTD AVE	0.7817	0.0833	0.0547	0.0203	0.6387	0.3398	0.1788	0.3398	0.2038	0.0986
Taylor	**LOW**	0.7742	0.0847	0.0547	0.0213	0.6431	0.3531	0.1913	0.3531	0.2172	0.1080
	HIGH	1.2200	0.1561	0.0886	0.0449	1.1006	0.6934	0.4342	0.6934	0.4793	0.2862
	WGHTD AVE	0.9632	0.1149	0.0689	0.0318	0.8431	0.5105	0.3070	0.5105	0.3422	0.1925
Union	**LOW**	0.7837	0.0793	0.0529	0.0182	0.6187	0.3056	0.1499	0.3056	0.1724	0.0780
	HIGH	1.0586	0.1162	0.0760	0.0287	0.8809	0.4843	0.2551	0.4843	0.2923	0.1367
	WGHTD AVE	1.0402	0.1138	0.0744	0.0280	0.8634	0.4723	0.2480	0.4723	0.2842	0.1328
Volusia	**LOW**	2.3930	0.1394	0.0924	0.0333	2.1763	1.6970	1.0579	1.6970	1.2541	0.4591
	HIGH	3.9484	0.3653	0.1641	0.1189	3.9709	3.3611	2.4145	3.3611	2.7091	1.4827
	WGHTD AVE	3.1550	0.2128	0.1270	0.0574	2.9782	2.4086	1.5867	2.4086	1.8409	0.7821
Wakulla	**LOW**	0.8219	0.0892	0.0583	0.0221	0.6798	0.3703	0.1977	0.3703	0.2254	0.1097
	HIGH	1.5552	0.2131	0.1143	0.0666	1.4870	1.0270	0.6904	1.0270	0.7566	0.4730
	WGHTD AVE	0.9829	0.1103	0.0688	0.0287	0.8385	0.4971	0.2914	0.4971	0.3267	0.1779
Walton	**LOW**	1.3764	0.1637	0.1046	0.0453	1.2224	0.7529	0.4422	0.7529	0.4998	0.2581
	HIGH	3.0733	0.5172	0.2118	0.1872	3.3200	2.6525	2.0372	2.6525	2.1746	1.5643

	WGHTD AVE	1.9568	0.2780	0.1394	0.0850	1.8975	1.3397	0.9200	1.3397	1.0025	0.6455
Washington	**LOW**	1.2164	0.1377	0.0880	0.0359	1.0351	0.5943	0.3299	0.5943	0.3744	0.1877
	HIGH	1.9919	0.2853	0.1491	0.0913	1.9403	1.3650	0.9315	1.3650	1.0157	0.6518
	WGHTD AVE	1.5147	0.1890	0.1131	0.0542	1.3717	0.8736	0.5337	0.8736	0.5966	0.3314

STATEWIDE	**LOW**	0.5964	0.0592	0.0401	0.0134	0.4660	0.2250	0.1094	0.2250	0.1255	0.0574
	HIGH	10.4750	1.6574	0.3158	0.6544	12.1878	11.4018	9.5812	11.4018	10.1611	7.5894
	WGHTD AVE	4.1282	0.3562	0.1649	0.1140	4.0873	3.4426	2.4544	3.4426	2.7604	1.4547

LOSS COSTS PER $1,000											
PERSONAL RESIDENTIAL - MOBILE HOMES											
		$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE APPURTENANT STRUCTURE	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
COUNTY	LOSS COSTS										
Alachua	LOW	3.2012	0.4176	0.0738	0.1488	3.2112	2.8736	2.1448	3.2112	2.8736	2.1448
	HIGH	4.5896	0.6940	0.0936	0.2600	4.8934	4.4756	3.5542	4.8934	4.4756	3.5542
	WGHTD AVE	3.7423	0.5246	0.0815	0.1919	3.8667	3.4973	2.6928	3.8667	3.4973	2.6928
Baker	LOW	1.5144	0.1562	0.0428	0.0492	1.3656	1.1720	0.7746	1.3656	1.1720	0.7746
	HIGH	2.9298	0.3770	0.0680	0.1346	2.9240	2.6136	1.9484	2.9240	2.6136	1.9484
	WGHTD AVE	2.5499	0.3234	0.0615	0.1127	2.5175	2.2377	1.6435	2.5175	2.2377	1.6435
Bay	LOW	4.4730	0.6538	0.0936	0.2446	4.7084	4.2874	3.3630	4.7084	4.2874	3.3630
	HIGH	17.4168	4.3294	0.2216	1.6920	22.4580	21.6496	19.7426	22.4580	21.6496	19.7426
	WGHTD AVE	8.0216	1.5119	0.1311	0.5818	9.2897	8.7260	7.4449	9.2897	8.7260	7.4449
Bradford	LOW	2.9614	0.3742	0.0698	0.1322	2.9314	2.6114	1.9264	2.9314	2.6114	1.9264
	HIGH	4.0342	0.5812	0.0858	0.2142	4.2176	3.8310	2.9818	4.2176	3.8310	2.9818
	WGHTD AVE	3.0928	0.3956	0.0721	0.1410	3.0799	2.7502	2.0420	3.0799	2.7502	2.0420
Brevard	LOW	10.1984	1.5638	0.1162	0.6248	11.3902	10.5336	8.4584	11.3902	10.5336	8.4584
	HIGH	25.6434	5.9292	0.2364	2.3638	32.2848	30.9624	27.8268	32.2848	30.9624	27.8268
	WGHTD AVE	14.4123	2.5580	0.1491	1.0411	16.8487	15.8186	13.2739	16.8487	15.8186	13.2739
Broward	LOW	20.4132	4.1194	0.1914	1.7054	24.9388	23.7124	20.6362	24.9388	23.7124	20.6362

	HIGH	31.8024	7.6340	0.2672	3.1478	41.1940	39.7870	36.1656	41.1940	39.7870	36.1656
	WGHTD AVE	24.0932	5.1994	0.2159	2.1502	30.1005	28.8023	25.5043	30.1005	28.8023	25.5043
Calhoun	**LOW**	3.3688	0.4442	0.0766	0.1612	3.4012	3.0526	2.3004	3.4012	3.0526	2.3004
	HIGH	5.1722	0.8086	0.1012	0.3082	5.6070	5.1560	4.1504	5.6070	5.1560	4.1504
	WGHTD AVE	3.9427	0.5425	0.0847	0.2006	4.0645	3.6795	2.8377	4.0645	3.6795	2.8377
Charlotte	**LOW**	14.8556	2.5734	0.1518	1.0500	17.3570	16.3142	13.7048	17.3570	16.3142	13.7048
	HIGH	26.9484	6.4744	0.2290	2.5934	34.7652	33.5172	30.3242	34.7652	33.5172	30.3242
	WGHTD AVE	17.0939	3.1517	0.1698	1.2924	20.3527	19.2367	16.4314	20.3527	19.2367	16.4314
Citrus	**LOW**	7.3718	0.8922	0.0918	0.3514	7.7430	7.0140	5.2682	7.7430	7.0140	5.2682
	HIGH	11.3538	1.7750	0.1272	0.7166	12.8106	11.9074	9.6978	12.8106	11.9074	9.6978
	WGHTD AVE	9.9900	1.4420	0.1157	0.5812	11.0215	10.1687	8.0935	11.0215	10.1687	8.0935
Clay	**LOW**	2.8526	0.3562	0.0676	0.1248	2.8044	2.4920	1.8266	2.8044	2.4920	1.8266
	HIGH	4.7308	0.7168	0.0962	0.2686	5.0514	4.6222	3.6742	5.0514	4.6222	3.6742
	WGHTD AVE	3.4088	0.4637	0.0757	0.1684	3.4763	3.1307	2.3830	3.4763	3.1307	2.3830
Collier	**LOW**	18.1212	3.1838	0.1830	1.3082	21.3142	20.0888	17.0036	21.3142	20.0888	17.0036
	HIGH	31.2222	7.3954	0.2638	2.9990	40.2282	38.8186	35.1850	40.2282	38.8186	35.1850
	WGHTD AVE	22.1146	4.4780	0.2063	1.8350	27.1309	25.8750	22.6732	27.1309	25.8750	22.6732
Columbia	**LOW**	1.6090	0.1688	0.0454	0.0532	1.4514	1.2452	0.8254	1.4514	1.2452	0.8254
	HIGH	3.1592	0.4390	0.0700	0.1592	3.2412	2.9242	2.2368	3.2412	2.9242	2.2368
	WGHTD AVE	2.8365	0.3788	0.0661	0.1351	2.8591	2.5610	1.9213	2.8591	2.5610	1.9213
De Soto	**LOW**	12.9952	1.9670	0.1464	0.8020	14.5972	13.5634	11.0114	14.5972	13.5634	11.0114
	HIGH	16.0348	2.8746	0.1674	1.1730	18.8848	17.7974	15.0940	18.8848	17.7974	15.0940

	WGHTD AVE	13.9073	2.2729	0.1519	0.9259	15.9392	14.8986	12.3265	15.9392	14.8986	12.3265
Dixie	LOW	3.4936	0.5336	0.0734	0.1964	3.7024	3.3756	2.6618	3.7024	3.3756	2.6618
	HIGH	7.5606	1.4832	0.1246	0.5704	8.8826	8.3620	7.1746	8.8826	8.3620	7.1746
	WGHTD AVE	4.0443	0.6612	0.0809	0.2487	4.4044	4.0492	3.2665	4.4044	4.0492	3.2665
Duval	LOW	1.5142	0.1582	0.0434	0.0494	1.3588	1.1628	0.7662	1.3588	1.1628	0.7662
	HIGH	6.5582	1.4516	0.1014	0.5542	7.9872	7.5840	6.6758	7.9872	7.5840	6.6758
	WGHTD AVE	3.0056	0.4261	0.0663	0.1539	3.0878	2.7899	2.1504	3.0878	2.7899	2.1504
Escambia	LOW	7.6702	1.4554	0.1264	0.5730	8.9652	8.4368	7.2324	8.9652	8.4368	7.2324
	HIGH	21.8760	5.7482	0.2594	2.2406	28.8244	27.9224	25.7698	28.8244	27.9224	25.7698
	WGHTD AVE	12.4377	2.7950	0.1766	1.0873	15.4319	14.7428	13.1422	15.4319	14.7428	13.1422
Flagler	LOW	9.7116	1.4012	0.1128	0.5656	10.7132	9.8804	7.8588	10.7132	9.8804	7.8588
	HIGH	14.9206	2.8968	0.1506	1.1708	17.9356	16.9822	14.6198	17.9356	16.9822	14.6198
	WGHTD AVE	12.0448	2.1508	0.1223	0.8681	14.0463	13.1588	10.9824	14.0463	13.1588	10.9824
Franklin	LOW	8.2014	1.6536	0.1358	0.6430	9.7180	9.1712	7.9430	9.7180	9.1712	7.9430
	HIGH	13.6338	3.3964	0.1838	1.3168	17.4960	16.8380	15.3218	17.4960	16.8380	15.3218
	WGHTD AVE	11.1323	2.5898	0.1628	1.0118	13.9181	13.3093	11.9221	13.9181	13.3093	11.9221
Gadsen	LOW	2.2180	0.2542	0.0566	0.0868	2.1118	1.8528	1.3066	2.1118	1.8528	1.3066
	HIGH	3.8020	0.5324	0.0820	0.1976	3.9452	3.5756	2.7656	3.9452	3.5756	2.7656
	WGHTD AVE	2.5397	0.3151	0.0612	0.1110	2.4933	2.2136	1.6177	2.4933	2.2136	1.6177
Gilchrist	LOW	3.0000	0.4138	0.0676	0.1486	3.0524	2.7446	2.0834	3.0524	2.7446	2.0834
	HIGH	4.8616	0.7904	0.0942	0.2988	5.3214	4.9064	3.9826	5.3214	4.9064	3.9826
	WGHTD AVE	4.2734	0.6721	0.0858	0.2492	4.6031	4.2221	3.3814	4.6031	4.2221	3.3814

Glades	LOW	15.0916	2.3522	0.1676	0.9606	17.0916	15.9248	13.0404	17.0916	15.9248	13.0404
	HIGH	16.0090	2.6048	0.1746	1.0626	18.3376	17.1394	14.1712	18.3376	17.1394	14.1712
	WGHTD AVE	15.9804	2.5968	0.1744	1.0595	18.2988	17.1015	14.1360	18.2988	17.1015	14.1360
Gulf	LOW	5.2314	0.8620	0.1024	0.3290	5.7340	5.2922	4.3250	5.7340	5.2922	4.3250
	HIGH	8.4694	1.6434	0.1426	0.6400	9.9174	9.3322	8.0140	9.9174	9.3322	8.0140
	WGHTD AVE	6.4252	1.1442	0.1153	0.4381	7.2534	6.7595	5.6648	7.2534	6.7595	5.6648
Hamilton	LOW	1.4300	0.1508	0.0400	0.0478	1.2960	1.1142	0.7424	1.2960	1.1142	0.7424
	HIGH	2.5372	0.3396	0.0586	0.1216	2.5582	2.2938	1.7260	2.5582	2.2938	1.7260
	WGHTD AVE	1.9692	0.2405	0.0495	0.0827	1.9039	1.6802	1.2099	1.9039	1.6802	1.2099
Hardee	LOW	13.2758	2.0272	0.1488	0.8276	14.9462	13.8986	11.3148	14.9462	13.8986	11.3148
	HIGH	15.6996	2.7524	0.1658	1.1248	18.3742	17.2848	14.5774	18.3742	17.2848	14.5774
	WGHTD AVE	13.9825	2.1944	0.1549	0.8995	15.8699	14.7975	12.1458	15.8699	14.7975	12.1458
Hendry	LOW	16.6212	2.7374	0.1730	1.1228	19.1754	17.9644	14.9350	19.1754	17.9644	14.9350
	HIGH	20.3026	3.7332	0.2002	1.5258	24.1562	22.8276	19.4794	24.1562	22.8276	19.4794
	WGHTD AVE	18.9683	3.3500	0.1912	1.3688	22.3219	21.0385	17.8113	22.3219	21.0385	17.8113
Hernando	LOW	8.5626	1.0640	0.1052	0.4252	9.0822	8.2654	6.3020	9.0822	8.2654	6.3020
	HIGH	11.8152	1.9116	0.1308	0.7744	13.4658	12.5560	10.3254	13.4658	12.5560	10.3254
	WGHTD AVE	10.1536	1.5161	0.1161	0.6118	11.2998	10.4519	8.3916	11.2998	10.4519	8.3916
Highlands	LOW	11.6676	1.5472	0.1384	0.6276	12.6388	11.6020	9.0798	12.6388	11.6020	9.0798
	HIGH	15.3714	2.4370	0.1694	0.9952	17.4872	16.3130	13.4086	17.4872	16.3130	13.4086
	WGHTD AVE	12.9021	1.8410	0.1497	0.7511	14.2629	13.1877	10.5508	14.2629	13.1877	10.5508

Hillsborough	LOW	10.0252	1.5172	0.1140	0.6140	11.2130	10.3928	8.3916	11.2130	10.3928	8.3916
	HIGH	19.5796	4.2258	0.1852	1.7126	24.3792	23.3116	20.6378	24.3792	23.3116	20.6378
	WGHTD AVE	13.3623	2.3184	0.1427	0.9401	15.5524	14.6001	12.2489	15.5524	14.6001	12.2489
Holmes	LOW	4.5054	0.6626	0.0918	0.2498	4.7682	4.3522	3.4360	4.7682	4.3522	3.4360
	HIGH	6.6214	1.1810	0.1184	0.4562	7.5146	7.0058	5.8612	7.5146	7.0058	5.8612
	WGHTD AVE	5.0623	0.8070	0.0986	0.3050	5.5077	5.0700	4.0986	5.5077	5.0700	4.0986
Indian River	LOW	13.9942	2.2966	0.1528	0.9278	16.0132	14.9436	12.3058	16.0132	14.9436	12.3058
	HIGH	24.7366	5.7794	0.2246	2.3054	31.5410	30.3150	27.2132	31.5410	30.3150	27.2132
	WGHTD AVE	16.7061	3.0787	0.1718	1.2434	19.7766	18.6465	15.8335	19.7766	18.6465	15.8335
Jackson	LOW	2.0828	0.2204	0.0560	0.0718	1.9156	1.6568	1.1186	1.9156	1.6568	1.1186
	HIGH	4.9108	0.7594	0.0970	0.2896	5.3028	4.8718	3.9148	5.3028	4.8718	3.9148
	WGHTD AVE	3.6081	0.4839	0.0804	0.1791	3.6856	3.3231	2.5342	3.6856	3.3231	2.5342
Jefferson	LOW	2.0418	0.2658	0.0492	0.0934	2.0220	1.8008	1.3330	2.0220	1.8008	1.3330
	HIGH	2.7738	0.4232	0.0600	0.1558	2.9292	2.6688	2.1068	2.9292	2.6688	2.1068
	WGHTD AVE	2.1476	0.2840	0.0506	0.1008	2.1427	1.9151	1.4324	2.1427	1.9151	1.4324
Lafayette	LOW	2.3912	0.3280	0.0550	0.1174	2.4202	2.1726	1.6450	2.4202	2.1726	1.6450
	HIGH	3.0766	0.4486	0.0670	0.1640	3.2034	2.9040	2.2550	3.2034	2.9040	2.2550
	WGHTD AVE	3.0573	0.4434	0.0667	0.1624	3.1780	2.8803	2.2352	3.1780	2.8803	2.2352
Lake	LOW	6.6972	0.6580	0.0872	0.2558	6.7992	6.0530	4.2706	6.7992	6.0530	4.2706
	HIGH	15.1166	2.6124	0.1610	1.0630	17.5860	16.5046	13.8290	17.5860	16.5046	13.8290
	WGHTD AVE	10.8287	1.5045	0.1269	0.6081	11.8510	10.9098	8.6187	11.8510	10.9098	8.6187
Lee	LOW	16.0080	2.7738	0.1632	1.1354	18.7322	17.6248	14.8414	18.7322	17.6248	14.8414

	HIGH	27.2202	6.2906	0.2354	2.5502	34.7704	33.4786	30.1662	34.7704	33.4786	30.1662
	WGHTD AVE	18.4962	3.4249	0.1807	1.4068	22.0685	20.8883	17.9082	22.0685	20.8883	17.9082
Leon	LOW	1.5282	0.1672	0.0426	0.0536	1.4000	1.2082	0.8152	1.4000	1.2082	0.8152
	HIGH	3.4400	0.4974	0.0730	0.1836	3.5978	3.2692	2.5518	3.5978	3.2692	2.5518
	WGHTD AVE	2.8131	0.3791	0.0633	0.1367	2.8541	2.5667	1.9469	2.8541	2.5667	1.9469
Levy	LOW	3.0690	0.4220	0.0692	0.1520	3.1282	2.8156	2.1412	3.1282	2.8156	2.1412
	HIGH	6.5306	1.1782	0.1152	0.4514	7.4428	6.9472	5.8278	7.4428	6.9472	5.8278
	WGHTD AVE	5.0147	0.8244	0.0959	0.3140	5.5087	5.0854	4.1425	5.5087	5.0854	4.1425
Liberty	LOW	3.1394	0.3984	0.0736	0.1426	3.1236	2.7872	2.0636	3.1236	2.7872	2.0636
	HIGH	3.5034	0.4858	0.0774	0.1788	3.6002	3.2508	2.4904	3.6002	3.2508	2.4904
	WGHTD AVE	3.2505	0.4307	0.0743	0.1560	3.2841	2.9468	2.2183	3.2841	2.9468	2.2183
Madison	LOW	1.5862	0.1796	0.0418	0.0596	1.4906	1.3004	0.9044	1.4906	1.3004	0.9044
	HIGH	2.5216	0.3442	0.0572	0.1242	2.5648	2.3078	1.7546	2.5648	2.3078	1.7546
	WGHTD AVE	2.1433	0.2734	0.0507	0.0961	2.1167	1.8858	1.3949	2.1167	1.8858	1.3949
Manatee	LOW	13.9590	2.5380	0.1402	1.0354	16.5300	15.5982	13.2710	16.5300	15.5982	13.2710
	HIGH	24.2876	5.7206	0.2118	2.2966	31.1060	29.9354	26.9792	31.1060	29.9354	26.9792
	WGHTD AVE	15.4805	2.9861	0.1507	1.2152	18.6467	17.6769	15.2473	18.6467	17.6769	15.2473
Marion	LOW	4.9692	0.3890	0.0702	0.1432	4.7204	4.1000	2.6642	4.7204	4.1000	2.6642
	HIGH	11.3342	1.7462	0.1272	0.7048	12.7514	11.8418	9.6042	12.7514	11.8418	9.6042
	WGHTD AVE	8.4974	1.0412	0.1042	0.4147	8.9861	8.1693	6.2028	8.9861	8.1693	6.2028
Martin	LOW	17.0324	2.8812	0.1748	1.2012	19.7770	18.5430	15.4658	19.7770	18.5430	15.4658
	HIGH	29.9704	6.9006	0.2590	2.8472	38.2718	36.8340	33.1496	38.2718	36.8340	33.1496

	WGHTD AVE	21.8931	4.0821	0.2015	1.7311	26.1789	24.8626	21.5403	26.1789	24.8626	21.5403
Miami-Dade	LOW	19.1188	3.7798	0.1806	1.5720	23.2380	22.0732	19.1476	23.2380	22.0732	19.1476
	HIGH	39.7552	10.3416	0.3158	4.2368	52.9348	51.4542	47.5898	52.9348	51.4542	47.5898
	WGHTD AVE	25.9307	5.8458	0.2270	2.3994	32.8981	31.6051	28.2895	32.8981	31.6051	28.2895
Monroe	LOW	20.9890	4.3968	0.1874	1.9192	26.1860	25.0892	22.2864	26.1860	25.0892	22.2864
	HIGH	37.1642	9.3754	0.2936	4.0356	49.2720	47.8950	44.3090	49.2720	47.8950	44.3090
	WGHTD AVE	32.6065	8.2286	0.2536	3.4594	43.0229	41.7367	38.4024	43.0229	41.7367	38.4024
Nassau	LOW	1.8224	0.2208	0.0464	0.0746	1.7508	1.5416	1.1058	1.7508	1.5416	1.1058
	HIGH	3.3620	0.5572	0.0680	0.2076	3.6542	3.3586	2.7184	3.6542	3.3586	2.7184
	WGHTD AVE	2.2674	0.2977	0.0540	0.1048	2.2569	2.0133	1.4978	2.2569	2.0133	1.4978
Okaloosa	LOW	7.0234	1.2942	0.1198	0.5062	8.1018	7.5940	6.4442	8.1018	7.5940	6.4442
	HIGH	15.9440	3.8204	0.2112	1.4974	20.2888	19.4970	17.6350	20.2888	19.4970	17.6350
	WGHTD AVE	10.8101	2.3637	0.1568	0.9044	13.2305	12.5971	11.1356	13.2305	12.5971	11.1356
Okeechobee	LOW	13.6240	2.0080	0.1556	0.8152	15.1506	14.0202	11.2578	15.1506	14.0202	11.2578
	HIGH	15.3530	2.4438	0.1692	0.9944	17.4558	16.2738	13.3584	17.4558	16.2738	13.3584
	WGHTD AVE	14.7600	2.2533	0.1658	0.9166	16.5917	15.4135	12.5186	16.5917	15.4135	12.5186
Orange	LOW	8.7860	0.9908	0.1092	0.3944	9.1220	8.2408	6.1238	9.1220	8.2408	6.1238
	HIGH	14.3636	2.3782	0.1562	0.9658	16.5018	15.4286	12.7802	16.5018	15.4286	12.7802
	WGHTD AVE	11.2860	1.5740	0.1301	0.6407	12.3696	11.3906	9.0010	12.3696	11.3906	9.0010
Osceola	LOW	10.1632	1.2530	0.1238	0.5056	10.8148	9.8664	7.5626	10.8148	9.8664	7.5626
	HIGH	12.9816	1.9388	0.1472	0.7876	14.5090	13.4546	10.8630	14.5090	13.4546	10.8630
	WGHTD AVE	11.8412	1.6309	0.1387	0.6625	12.9674	11.9484	9.4520	12.9674	11.9484	9.4520

Palm Beach	LOW	17.8520	3.2094	0.1782	1.3320	21.0754	19.8516	16.7928	21.0754	19.8516	16.7928
	HIGH	33.5624	7.9436	0.2848	3.2744	43.2754	41.7536	37.8266	43.2754	41.7536	37.8266
	WGHTD AVE	21.3238	4.2573	0.2041	1.7498	25.9853	24.6857	21.4081	25.9853	24.6857	21.4081
Pasco	LOW	9.5476	1.2244	0.1104	0.4934	10.2500	9.3718	7.2406	10.2500	9.3718	7.2406
	HIGH	12.9620	2.1748	0.1408	0.8810	14.9308	13.9702	11.6036	14.9308	13.9702	11.6036
	WGHTD AVE	11.0794	1.7026	0.1257	0.6868	12.4508	11.5591	9.3779	12.4508	11.5591	9.3779
Pinellas	LOW	11.5258	1.8964	0.1210	0.7702	13.2376	12.3698	10.2250	13.2376	12.3698	10.2250
	HIGH	26.9166	6.5896	0.2280	2.6264	34.8678	33.6466	30.5366	34.8678	33.6466	30.5366
	WGHTD AVE	13.2729	2.4097	0.1339	0.9769	15.6769	14.7690	12.5105	15.6769	14.7690	12.5105
Polk	LOW	10.5040	1.3088	0.1268	0.5286	11.2068	10.2354	7.8748	11.2068	10.2354	7.8748
	HIGH	17.6040	3.2204	0.1816	1.3146	20.8628	19.6962	16.7852	20.8628	19.6962	16.7852
	WGHTD AVE	12.8874	1.9498	0.1446	0.7938	14.4592	13.4242	10.8805	14.4592	13.4242	10.8805
Putnam	LOW	3.5740	0.4710	0.0806	0.1704	3.6184	3.2510	2.4544	3.6184	3.2510	2.4544
	HIGH	5.4234	0.8778	0.1036	0.3340	5.9468	5.4896	4.4696	5.9468	5.4896	4.4696
	WGHTD AVE	4.8539	0.7456	0.0971	0.2809	5.2130	4.7798	3.8218	5.2130	4.7798	3.8218
St. Johns	LOW	2.9898	0.4038	0.0684	0.1446	3.0212	2.7114	2.0488	3.0212	2.7114	2.0488
	HIGH	7.4036	1.4730	0.1210	0.5678	8.7296	8.2256	7.0832	8.7296	8.2256	7.0832
	WGHTD AVE	4.9402	0.8664	0.0925	0.3253	5.5193	5.1172	4.2280	5.5193	5.1172	4.2280
St. Lucie	LOW	15.2848	2.4510	0.1608	1.0226	17.4836	16.3188	13.4274	17.4836	16.3188	13.4274
	HIGH	22.2554	4.4658	0.2086	1.8530	27.1946	25.8760	22.5358	27.1946	25.8760	22.5358
	WGHTD AVE	20.6892	4.0004	0.1969	1.6753	24.9998	23.7191	20.4861	24.9998	23.7191	20.4861

Santa Rosa	LOW	6.8402	1.1964	0.1200	0.4670	7.7566	7.2370	6.0612	7.7566	7.2370	6.0612
	HIGH	16.6726	4.0578	0.2168	1.5906	21.3348	20.5284	18.6316	21.3348	20.5284	18.6316
	WGHTD AVE	10.7156	2.3193	0.1596	0.9101	13.0993	12.4571	10.9752	13.0993	12.4571	10.9752
Sarasota	LOW	13.2924	2.3922	0.1342	0.9734	15.6784	14.7720	12.5140	15.6784	14.7720	12.5140
	HIGH	18.4642	3.6762	0.1756	1.4970	22.4802	21.3752	18.5836	22.4802	21.3752	18.5836
	WGHTD AVE	16.8185	3.2639	0.1627	1.3308	20.3191	19.2759	16.6518	20.3191	19.2759	16.6518
Seminole	LOW	9.6310	1.1884	0.1176	0.4774	10.2294	9.3204	7.1210	10.2294	9.3204	7.1210
	HIGH	11.9846	1.8122	0.1356	0.7320	13.4070	12.4284	10.0318	13.4070	12.4284	10.0318
	WGHTD AVE	10.5015	1.3776	0.1244	0.5571	11.3308	10.3820	8.0744	11.3308	10.3820	8.0744
Sumter	LOW	8.9866	1.0890	0.1106	0.4362	9.4930	8.6308	6.5520	9.4930	8.6308	6.5520
	HIGH	11.6184	1.7002	0.1332	0.6894	12.8954	11.9266	9.5596	12.8954	11.9266	9.5596
	WGHTD AVE	11.0655	1.5862	0.1275	0.6416	12.2101	11.2660	8.9606	12.2101	11.2660	8.9606
Suwanee	LOW	1.7024	0.1934	0.0450	0.0642	1.5958	1.3910	0.9662	1.5958	1.3910	0.9662
	HIGH	3.9426	0.6102	0.0804	0.2274	4.2180	3.8602	3.0746	4.2180	3.8602	3.0746
	WGHTD AVE	2.2651	0.2949	0.0542	0.1043	2.2476	2.0028	1.4842	2.2476	2.0028	1.4842
Taylor	LOW	2.4118	0.3356	0.0546	0.1210	2.4604	2.2150	1.6894	2.4604	2.2150	1.6894
	HIGH	4.6920	0.8116	0.0886	0.3064	5.2264	4.8426	3.9908	5.2264	4.8426	3.9908
	WGHTD AVE	3.6038	0.5953	0.0711	0.2235	3.9334	3.6240	2.9460	3.9334	3.6240	2.9460
Union	LOW	1.9678	0.2148	0.0530	0.0700	1.8188	1.5764	1.0738	1.8188	1.5764	1.0738
	HIGH	3.3906	0.4552	0.0760	0.1648	3.4488	3.1026	2.3506	3.4488	3.1026	2.3506
	WGHTD AVE	3.1926	0.4225	0.0730	0.1517	3.2236	2.8916	2.1736	3.2236	2.8916	2.1736
Volusia	LOW	7.2984	0.8378	0.0924	0.3316	7.5728	6.8312	5.0698	7.5728	6.8312	5.0698

	HIGH	16.6424	3.3528	0.1642	1.3542	20.2558	19.2452	16.7206	20.2558	19.2452	16.7206
	WGHTD AVE	11.0998	1.7215	0.1241	0.6886	12.4927	11.5932	9.3942	12.4927	11.5932	9.3942
Wakulla	LOW	2.5262	0.3400	0.0582	0.1220	2.5522	2.2906	1.7300	2.5522	2.2906	1.7300
	HIGH	6.9646	1.3808	0.1142	0.5330	8.2086	7.7346	6.6610	8.2086	7.7346	6.6610
	WGHTD AVE	2.8366	0.4075	0.0617	0.1478	2.9334	2.6559	2.0574	2.9334	2.6559	2.0574
Walton	LOW	5.5178	0.9254	0.1046	0.3542	6.1058	5.6490	4.6344	6.1058	5.6490	4.6344
	HIGH	15.8992	3.7774	0.2118	1.4816	20.1690	19.3686	17.4878	20.1690	19.3686	17.4878
	WGHTD AVE	7.0688	1.2966	0.1181	0.5097	8.1046	7.5875	6.4203	8.1046	7.5875	6.4203
Washington	LOW	4.1854	0.6168	0.0880	0.2300	4.4050	4.0096	3.1456	4.4050	4.0096	3.1456
	HIGH	9.3422	1.8698	0.1492	0.7298	11.0966	10.4800	9.0664	11.0966	10.4800	9.0664
	WGHTD AVE	6.1614	1.0724	0.1129	0.4150	6.9363	6.4487	5.3536	6.9363	6.4487	5.3536
STATEWIDE	LOW	1.4300	0.1508	0.0400	0.0478	1.2960	1.1142	0.7424	1.2960	1.1142	0.7424
	HIGH	39.7552	10.3416	0.3158	4.2368	52.9348	51.4542	47.5898	52.9348	51.4542	47.5898
	WGHTD AVE	12.3944	2.1777	0.1315	0.8917	14.4520	13.5538	11.3479	14.4520	13.5538	11.3479

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - Renters -- FRAME

COUNTY	LOSS COSTS	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	LOW	0.2252	0.0556	0.0752	0.0688	0.0648	0.0804	0.0752	0.0672
	HIGH	0.2992	0.0792	0.1240	0.1132	0.1044	0.1320	0.1240	0.1104
	WGHTD AVE	0.2544	0.0644	0.0926	0.0845	0.0788	0.0987	0.0926	0.0827
Baker	LOW	0.1264	0.0284	0.0332	0.0304	0.0296	0.0352	0.0332	0.0300
	HIGH	0.2080	0.0508	0.0672	0.0616	0.0580	0.0720	0.0672	0.0600
	WGHTD AVE	0.2014	0.0498	0.0648	0.0594	0.0560	0.0694	0.0648	0.0580
Bay	LOW	0.2972	0.0780	0.1160	0.1056	0.0980	0.1236	0.1160	0.1032
	HIGH	1.5472	0.5680	1.5740	1.4792	1.3224	1.6332	1.5740	1.4436
	WGHTD AVE	0.6473	0.2070	0.4630	0.4282	0.3836	0.4866	0.4630	0.4170
Bradford	LOW	0.2152	0.0520	0.0684	0.0624	0.0588	0.0728	0.0684	0.0612
	HIGH	0.2752	0.0712	0.1064	0.0968	0.0900	0.1132	0.1064	0.0948
	WGHTD AVE	0.2229	0.0538	0.0718	0.0655	0.0620	0.0768	0.0718	0.0643
Brevard	LOW	0.4704	0.1368	0.2860	0.2640	0.2372	0.3008	0.2860	0.2572
	HIGH	1.9916	0.6908	2.1012	1.9856	1.7784	2.1712	2.1012	1.9400
	WGHTD AVE	0.6486	0.1950	0.4510	0.4177	0.3736	0.4734	0.4510	0.4067
Broward	LOW	1.5012	0.5292	1.4788	1.3872	1.2352	1.5364	1.4788	1.3528

	HIGH	3.0508	1.1124	3.4148	3.2272	2.8828	3.5280	3.4148	3.1524
	WGHTD AVE	1.9333	0.6975	2.0097	1.8902	1.6846	2.0833	2.0097	1.8443
Calhoun	LOW	0.2368	0.0592	0.0808	0.0736	0.0692	0.0860	0.0808	0.0720
	HIGH	0.3308	0.0904	0.1448	0.1320	0.1212	0.1540	0.1448	0.1288
	WGHTD AVE	0.2762	0.0703	0.1020	0.0931	0.0867	0.1090	0.1020	0.0909
Charlotte	LOW	0.6284	0.1916	0.4136	0.3804	0.3400	0.4360	0.4136	0.3700
	HIGH	1.8264	0.6400	1.8840	1.7712	1.5780	1.9532	1.8840	1.7280
	WGHTD AVE	0.8695	0.2648	0.6853	0.6359	0.5663	0.7177	0.6853	0.6190
Citrus	LOW	0.3268	0.0860	0.1520	0.1400	0.1276	0.1608	0.1520	0.1364
	HIGH	0.5188	0.1528	0.3280	0.3032	0.2724	0.3448	0.3280	0.2952
	WGHTD AVE	0.4430	0.1248	0.2497	0.2303	0.2078	0.2634	0.2497	0.2244
Clay	LOW	0.2088	0.0508	0.0672	0.0616	0.0580	0.0720	0.0672	0.0604
	HIGH	0.3088	0.0816	0.1256	0.1144	0.1056	0.1344	0.1256	0.1120
	WGHTD AVE	0.2422	0.0619	0.0921	0.0842	0.0782	0.0980	0.0921	0.0823
Collier	LOW	0.7280	0.2224	0.4728	0.4336	0.3872	0.4996	0.4728	0.4216
	HIGH	1.6904	0.5940	1.6300	1.5184	1.3440	1.7004	1.6300	1.4776
	WGHTD AVE	0.9441	0.3095	0.7372	0.6808	0.6044	0.7746	0.7372	0.6619
Columbia	LOW	0.1348	0.0304	0.0360	0.0332	0.0320	0.0384	0.0360	0.0328
	HIGH	0.2224	0.0564	0.0820	0.0748	0.0696	0.0872	0.0820	0.0732
	WGHTD AVE	0.2033	0.0505	0.0693	0.0633	0.0594	0.0739	0.0693	0.0621
De Soto	LOW	0.5344	0.1524	0.2912	0.2664	0.2400	0.3088	0.2912	0.2592
	HIGH	0.7044	0.2188	0.4844	0.4456	0.3972	0.5108	0.4844	0.4332
	WGHTD AVE	0.5968	0.1775	0.3679	0.3381	0.3026	0.3885	0.3679	0.3288

Dixie	**LOW**	0.2500	0.0676	0.1136	0.1044	0.0960	0.1204	0.1136	0.1020
	HIGH	0.5588	0.1784	0.4100	0.3820	0.3440	0.4292	0.4100	0.3728
	WGHTD AVE	0.3277	0.0973	0.1814	0.1676	0.1522	0.1913	0.1814	0.1635
Duval	**LOW**	0.1280	0.0288	0.0340	0.0316	0.0304	0.0364	0.0340	0.0308
	HIGH	0.5688	0.1932	0.4992	0.4684	0.4204	0.5188	0.4992	0.4572
	WGHTD AVE	0.2519	0.0674	0.1124	0.1033	0.0950	0.1191	0.1124	0.1009
Escambia	**LOW**	0.4428	0.1360	0.2572	0.2348	0.2112	0.2732	0.2572	0.2284
	HIGH	2.1424	0.8048	2.3196	2.1856	1.9540	2.4016	2.3196	2.1340
	WGHTD AVE	0.9705	0.3413	0.8500	0.7905	0.7041	0.8885	0.8500	0.7697
Flagler	**LOW**	0.4056	0.1128	0.2088	0.1912	0.1728	0.2216	0.2088	0.1860
	HIGH	0.7580	0.2456	0.6088	0.5652	0.5032	0.6372	0.6088	0.5504
	WGHTD AVE	0.5435	0.1629	0.3698	0.3418	0.3056	0.3889	0.3698	0.3327
Franklin	**LOW**	0.5764	0.1876	0.4156	0.3848	0.3448	0.4364	0.4156	0.3748
	HIGH	1.3936	0.5088	1.4448	1.3628	1.2224	1.4952	1.4448	1.3316
	WGHTD AVE	0.7551	0.2343	0.6283	0.5860	0.5244	0.6560	0.6283	0.5712
Gadsen	**LOW**	0.1712	0.0404	0.0500	0.0460	0.0440	0.0536	0.0500	0.0452
	HIGH	0.2556	0.0656	0.0932	0.0852	0.0792	0.0996	0.0932	0.0832
	WGHTD AVE	0.1896	0.0463	0.0603	0.0552	0.0523	0.0645	0.0603	0.0542
Gilchrist	**LOW**	0.2180	0.0552	0.0812	0.0744	0.0692	0.0864	0.0812	0.0728
	HIGH	0.3200	0.0888	0.1512	0.1384	0.1264	0.1604	0.1512	0.1348
	WGHTD AVE	0.3030	0.0810	0.1387	0.1270	0.1162	0.1472	0.1387	0.1237
Glades	**LOW**	0.6196	0.1788	0.3480	0.3184	0.2860	0.3688	0.3480	0.3096

	HIGH	0.6724	0.1988	0.4036	0.3700	0.3316	0.4268	0.4036	0.3600
	WGHTD AVE	0.6699	0.1988	0.4016	0.3681	0.3299	0.4247	0.4016	0.3582
Gulf	LOW	0.3432	0.0968	0.1640	0.1500	0.1368	0.1744	0.1640	0.1460
	HIGH	0.5780	0.1840	0.3936	0.3636	0.3268	0.4140	0.3936	0.3544
	WGHTD AVE	0.4694	0.1402	0.2858	0.2633	0.2376	0.3015	0.2858	0.2566
Hamilton	LOW	0.1192	0.0272	0.0324	0.0300	0.0288	0.0344	0.0324	0.0292
	HIGH	0.1824	0.0452	0.0632	0.0576	0.0540	0.0672	0.0632	0.0564
	WGHTD AVE	0.1634	0.0415	0.0542	0.0496	0.0467	0.0576	0.0542	0.0485
Hardee	LOW	0.5388	0.1536	0.2908	0.2656	0.2392	0.3088	0.2908	0.2584
	HIGH	0.6704	0.2052	0.4400	0.4040	0.3604	0.4644	0.4400	0.3928
	WGHTD AVE	0.5701	0.1653	0.3248	0.2970	0.2667	0.3443	0.3248	0.2889
Hendry	LOW	0.6596	0.1952	0.3948	0.3616	0.3236	0.4180	0.3948	0.3512
	HIGH	0.8652	0.2716	0.6116	0.5632	0.5012	0.6440	0.6116	0.5476
	WGHTD AVE	0.7665	0.2303	0.5039	0.4630	0.4131	0.5319	0.5039	0.4500
Hernando	LOW	0.3584	0.0936	0.1572	0.1440	0.1316	0.1672	0.1572	0.1404
	HIGH	0.5220	0.1548	0.3304	0.3052	0.2740	0.3476	0.3304	0.2972
	WGHTD AVE	0.4498	0.1273	0.2576	0.2372	0.2135	0.2719	0.2576	0.2310
Highlands	LOW	0.4636	0.1232	0.2048	0.1864	0.1700	0.2184	0.2048	0.1816
	HIGH	0.6328	0.1840	0.3620	0.3312	0.2972	0.3836	0.3620	0.3220
	WGHTD AVE	0.5222	0.1452	0.2606	0.2378	0.2152	0.2771	0.2606	0.2314
Hillsborough	LOW	0.4284	0.1224	0.2408	0.2208	0.1988	0.2544	0.2408	0.2152
	HIGH	1.0336	0.3508	0.9144	0.8500	0.7536	0.9556	0.9144	0.8268
	WGHTD AVE	0.5720	0.1756	0.3878	0.3576	0.3194	0.4081	0.3878	0.3480

Holmes	LOW	0.2888	0.0768	0.1148	0.1048	0.0968	0.1228	0.1148	0.1020
	HIGH	0.4220	0.1252	0.2328	0.2136	0.1932	0.2468	0.2328	0.2080
	WGHTD AVE	0.3187	0.0830	0.1393	0.1273	0.1167	0.1485	0.1393	0.1240
Indian River	LOW	0.6372	0.1908	0.4128	0.3808	0.3412	0.4344	0.4128	0.3708
	HIGH	1.9072	0.6592	1.9880	1.8768	1.6800	2.0556	1.9880	1.8336
	WGHTD AVE	0.8741	0.2705	0.6838	0.6356	0.5669	0.7154	0.6838	0.6191
Jackson	LOW	0.1692	0.0392	0.0464	0.0428	0.0412	0.0496	0.0464	0.0424
	HIGH	0.3096	0.0836	0.1300	0.1184	0.1088	0.1388	0.1300	0.1156
	WGHTD AVE	0.2400	0.0604	0.0839	0.0767	0.0718	0.0897	0.0839	0.0751
Jefferson	LOW	0.1520	0.0372	0.0516	0.0472	0.0444	0.0548	0.0516	0.0464
	HIGH	0.1944	0.0520	0.0852	0.0780	0.0720	0.0904	0.0852	0.0764
	WGHTD AVE	0.1552	0.0380	0.0537	0.0492	0.0462	0.0571	0.0537	0.0483
Lafayette	LOW	0.1748	0.0440	0.0648	0.0596	0.0556	0.0688	0.0648	0.0580
	HIGH	0.2168	0.0564	0.0860	0.0788	0.0728	0.0916	0.0860	0.0772
	WGHTD AVE	0.2168	0.0564	0.0860	0.0788	0.0728	0.0916	0.0860	0.0772
Lake	LOW	0.2804	0.0680	0.0940	0.0860	0.0808	0.1004	0.0940	0.0844
	HIGH	0.6628	0.2020	0.4368	0.4020	0.3588	0.4608	0.4368	0.3908
	WGHTD AVE	0.4706	0.1333	0.2381	0.2176	0.1970	0.2528	0.2381	0.2119
Lee	LOW	0.6620	0.2020	0.4300	0.3944	0.3524	0.4548	0.4300	0.3832
	HIGH	1.5252	0.5296	1.4668	1.3700	1.2164	1.5280	1.4668	1.3344
	WGHTD AVE	0.8222	0.2536	0.6011	0.5546	0.4936	0.6323	0.6011	0.5392
Leon	LOW	0.1276	0.0292	0.0360	0.0332	0.0316	0.0380	0.0360	0.0324

	HIGH	0.2356	0.0612	0.0940	0.0860	0.0796	0.1000	0.0940	0.0840
	WGHTD AVE	0.1963	0.0491	0.0699	0.0641	0.0599	0.0745	0.0699	0.0626
Levy	LOW	0.2208	0.0560	0.0820	0.0748	0.0700	0.0872	0.0820	0.0732
	HIGH	0.4344	0.1304	0.2680	0.2484	0.2244	0.2816	0.2680	0.2424
	WGHTD AVE	0.3326	0.0933	0.1662	0.1525	0.1392	0.1759	0.1662	0.1487
Liberty	LOW	0.2272	0.0560	0.0740	0.0676	0.0640	0.0792	0.0740	0.0664
	HIGH	0.2416	0.0616	0.0916	0.0840	0.0780	0.0976	0.0916	0.0820
	WGHTD AVE	0.2300	0.0578	0.0791	0.0723	0.0680	0.0845	0.0791	0.0709
Madison	LOW	0.1260	0.0292	0.0360	0.0332	0.0320	0.0388	0.0360	0.0328
	HIGH	0.1796	0.0452	0.0656	0.0604	0.0560	0.0700	0.0656	0.0588
	WGHTD AVE	0.1655	0.0403	0.0562	0.0513	0.0484	0.0598	0.0562	0.0503
Manatee	LOW	0.6108	0.1908	0.4360	0.4024	0.3588	0.4584	0.4360	0.3916
	HIGH	1.6512	0.5720	1.6896	1.5908	1.4216	1.7500	1.6896	1.5532
	WGHTD AVE	0.7824	0.2471	0.6318	0.5867	0.5223	0.6612	0.6318	0.5711
Marion	LOW	0.2188	0.0492	0.0612	0.0564	0.0540	0.0652	0.0612	0.0552
	HIGH	0.5116	0.1496	0.3132	0.2888	0.2600	0.3296	0.3132	0.2816
	WGHTD AVE	0.3653	0.0952	0.1583	0.1448	0.1326	0.1683	0.1583	0.1412
Martin	LOW	0.9824	0.3276	0.8024	0.7452	0.6644	0.8400	0.8024	0.7256
	HIGH	2.7484	0.9940	3.0108	2.8432	2.5400	3.1124	3.0108	2.7768
	WGHTD AVE	1.4322	0.5116	1.3665	1.2800	1.1415	1.4212	1.3665	1.2481
Miami-Dade	LOW	1.3112	0.4600	1.2520	1.1712	1.0420	1.3032	1.2520	1.1412
	HIGH	4.6812	1.7060	5.5488	5.2792	4.7440	5.7064	5.5488	5.1672
	WGHTD AVE	2.3643	0.8533	2.5499	2.4022	2.1416	2.6402	2.5499	2.3445

Monroe	LOW	1.3952	0.5276	1.4092	1.3200	1.1760	1.4656	1.4092	1.2868
	HIGH	4.0268	1.5520	4.8400	4.6072	4.1528	4.9772	4.8400	4.5116
	WGHTD AVE	2.9932	0.9924	3.4245	3.2440	2.9116	3.5329	3.4245	3.1719
Nassau	LOW	0.1400	0.0332	0.0428	0.0392	0.0372	0.0456	0.0428	0.0384
	HIGH	0.2356	0.0656	0.1168	0.1076	0.0980	0.1236	0.1168	0.1048
	WGHTD AVE	0.2088	0.0544	0.0902	0.0827	0.0761	0.0956	0.0902	0.0808
Okaloosa	LOW	0.4184	0.1260	0.2348	0.2148	0.1936	0.2492	0.2348	0.2088
	HIGH	1.1804	0.4284	1.0920	1.0164	0.9032	1.1404	1.0920	0.9892
	WGHTD AVE	0.9493	0.3327	0.8181	0.7593	0.6751	0.8565	0.8181	0.7388
Okeechobee	LOW	0.5584	0.1560	0.2892	0.2644	0.2388	0.3072	0.2892	0.2576
	HIGH	0.6412	0.1868	0.3716	0.3404	0.3056	0.3936	0.3716	0.3312
	WGHTD AVE	0.6139	0.1752	0.3387	0.3100	0.2790	0.3593	0.3387	0.3015
Orange	LOW	0.3604	0.0904	0.1372	0.1252	0.1160	0.1464	0.1372	0.1224
	HIGH	0.6308	0.1888	0.4004	0.3684	0.3300	0.4224	0.4004	0.3584
	WGHTD AVE	0.4435	0.1190	0.2044	0.1866	0.1699	0.2175	0.2044	0.1817
Osceola	LOW	0.4072	0.1056	0.1680	0.1528	0.1404	0.1792	0.1680	0.1492
	HIGH	0.5392	0.1528	0.2916	0.2668	0.2408	0.3088	0.2916	0.2600
	WGHTD AVE	0.4365	0.1148	0.1932	0.1761	0.1609	0.2058	0.1932	0.1717
Palm Beach	LOW	1.1524	0.3924	1.0172	0.9492	0.8460	1.0612	1.0172	0.9248
	HIGH	3.2308	1.1732	3.6036	3.4068	3.0456	3.7220	3.6036	3.3284
	WGHTD AVE	1.7102	0.5687	1.6902	1.5879	1.4166	1.7540	1.6902	1.5493
Pasco	LOW	0.3888	0.1024	0.1708	0.1556	0.1424	0.1816	0.1708	0.1516

	HIGH	0.5816	0.1796	0.4064	0.3756	0.3356	0.4272	0.4064	0.3656
	WGHTD AVE	0.4939	0.1441	0.3005	0.2766	0.2482	0.3170	0.3005	0.2692
Pinellas	LOW	0.4904	0.1460	0.3104	0.2860	0.2560	0.3272	0.3104	0.2780
	HIGH	2.0104	0.7104	2.1648	2.0420	1.8216	2.2396	2.1648	1.9936
	WGHTD AVE	0.7481	0.2230	0.5995	0.5576	0.4969	0.6268	0.5995	0.5432
Polk	LOW	0.4184	0.1088	0.1728	0.1572	0.1444	0.1844	0.1728	0.1532
	HIGH	0.7784	0.2440	0.5476	0.5044	0.4488	0.5768	0.5476	0.4900
	WGHTD AVE	0.5161	0.1464	0.2734	0.2497	0.2251	0.2903	0.2734	0.2429
Putnam	LOW	0.2488	0.0616	0.0832	0.0760	0.0712	0.0892	0.0832	0.0744
	HIGH	0.3408	0.0940	0.1544	0.1408	0.1288	0.1648	0.1544	0.1372
	WGHTD AVE	0.3094	0.0825	0.1278	0.1164	0.1075	0.1364	0.1278	0.1138
St. Johns	LOW	0.2188	0.0552	0.0816	0.0752	0.0700	0.0868	0.0816	0.0736
	HIGH	0.5032	0.1600	0.3472	0.3212	0.2880	0.3652	0.3472	0.3128
	WGHTD AVE	0.3840	0.1141	0.2326	0.2148	0.1941	0.2447	0.2326	0.2096
St. Lucie	LOW	0.8380	0.2732	0.6432	0.5960	0.5320	0.6748	0.6432	0.5804
	HIGH	1.6300	0.5740	1.6060	1.5068	1.3428	1.6684	1.6060	1.4696
	WGHTD AVE	1.1988	0.4032	1.0665	0.9954	0.8869	1.1123	1.0665	0.9699
Santa Rosa	LOW	0.4048	0.1180	0.2076	0.1892	0.1716	0.2208	0.2076	0.1840
	HIGH	1.2508	0.4568	1.1788	1.0980	0.9760	1.2300	1.1788	1.0692
	WGHTD AVE	0.9096	0.3112	0.7732	0.7178	0.6390	0.8093	0.7732	0.6986
Sarasota	LOW	0.5872	0.1828	0.4168	0.3844	0.3428	0.4388	0.4168	0.3740
	HIGH	0.8664	0.2832	0.6968	0.6456	0.5740	0.7304	0.6968	0.6284
	WGHTD AVE	0.7229	0.2320	0.5549	0.5136	0.4571	0.5824	0.5549	0.4996

Seminole	LOW	0.3916	0.1016	0.1636	0.1492	0.1368	0.1748	0.1636	0.1456
	HIGH	0.5192	0.1492	0.2972	0.2732	0.2460	0.3140	0.2972	0.2660
	WGHTD AVE	0.4201	0.1112	0.1847	0.1684	0.1539	0.1968	0.1847	0.1642
Sumter	LOW	0.3720	0.0964	0.1576	0.1440	0.1324	0.1676	0.1576	0.1404
	HIGH	0.4832	0.1356	0.2548	0.2336	0.2112	0.2704	0.2548	0.2272
	WGHTD AVE	0.4248	0.1125	0.2025	0.1853	0.1686	0.2150	0.2025	0.1805
Suwanee	LOW	0.1352	0.0312	0.0384	0.0352	0.0336	0.0408	0.0384	0.0348
	HIGH	0.2680	0.0724	0.1180	0.1080	0.0992	0.1256	0.1180	0.1056
	WGHTD AVE	0.1633	0.0396	0.0538	0.0492	0.0463	0.0572	0.0538	0.0485
Taylor	LOW	0.1732	0.0440	0.0644	0.0592	0.0552	0.0688	0.0644	0.0580
	HIGH	0.3312	0.0968	0.1876	0.1732	0.1572	0.1976	0.1876	0.1692
	WGHTD AVE	0.2565	0.0714	0.1324	0.1218	0.1107	0.1397	0.1324	0.1189
Union	LOW	0.1596	0.0368	0.0444	0.0408	0.0392	0.0472	0.0444	0.0400
	HIGH	0.2364	0.0588	0.0808	0.0736	0.0692	0.0864	0.0808	0.0720
	WGHTD AVE	0.2111	0.0512	0.0687	0.0627	0.0592	0.0733	0.0687	0.0614
Volusia	LOW	0.3012	0.0756	0.1160	0.1056	0.0976	0.1236	0.1160	0.1032
	HIGH	0.9364	0.3124	0.8336	0.7792	0.6940	0.8688	0.8336	0.7592
	WGHTD AVE	0.4964	0.1432	0.2957	0.2720	0.2443	0.3121	0.2957	0.2648
Wakulla	LOW	0.1820	0.0456	0.0652	0.0596	0.0560	0.0696	0.0652	0.0584
	HIGH	0.4604	0.1456	0.3104	0.2864	0.2568	0.3268	0.3104	0.2788
	WGHTD AVE	0.2093	0.0513	0.0851	0.0779	0.0722	0.0905	0.0851	0.0762
Walton	LOW	0.3400	0.0952	0.1572	0.1428	0.1304	0.1676	0.1572	0.1392

	HIGH	1.1684	0.4224	1.0712	0.9968	0.8860	1.1192	1.0712	0.9704
	WGHTD AVE	0.6751	0.2259	0.5066	0.4685	0.4186	0.5320	0.5066	0.4561
Washington	LOW	0.2828	0.0748	0.1140	0.1040	0.0964	0.1212	0.1140	0.1016
	HIGH	0.6200	0.2008	0.4364	0.4032	0.3616	0.4592	0.4364	0.3928
	WGHTD AVE	0.4150	0.1217	0.2245	0.2058	0.1862	0.2380	0.2245	0.2002

STATEWIDE	LOW	0.1192	0.0272	0.0324	0.0300	0.0288	0.0344	0.0324	0.0292
	HIGH	4.6812	1.7060	5.5488	5.2792	4.7440	5.7064	5.5488	5.1672
	WGHTD AVE	0.5607	0.1658	0.3924	0.3639	0.3263	0.4115	0.3924	0.3546

LOSS COSTS PER $1,000									
PERSONAL RESIDENTIAL - Renters -- MASONRY									
		$0 DEDUCTIBLE		$500	$1,000	$2,500	1%	2%	5%
			ADDITIONAL	DEDUCTIBLE	DEDUCTIBLE	DEDUCTIBLE	DEDUCTIBLE	DEDUCTIBLE	DEDUCTIBLE
COUNTY	LOSS COSTS	CONTENTS	LIVING EXPENSE	TOTAL*	TOTAL*	TOTAL*	TOTAL*	TOTAL*	TOTAL*
Alachua	LOW	0.2212	0.0540	0.0708	0.0644	0.0608	0.0756	0.0708	0.0632
	HIGH	0.2912	0.0760	0.1136	0.1032	0.0952	0.1212	0.1136	0.1008
	WGHTD AVE	0.2490	0.0625	0.0863	0.0785	0.0735	0.0922	0.0863	0.0767
Baker	LOW	0.1256	0.0284	0.0328	0.0300	0.0292	0.0348	0.0328	0.0296
	HIGH	0.2052	0.0496	0.0636	0.0580	0.0548	0.0680	0.0636	0.0568
	WGHTD AVE	0.1995	0.0481	0.0614	0.0560	0.0530	0.0657	0.0614	0.0550
Bay	LOW	0.2900	0.0752	0.1072	0.0972	0.0904	0.1144	0.1072	0.0952
	HIGH	1.3036	0.4844	1.2564	1.1696	1.0340	1.3116	1.2564	1.1380
	WGHTD AVE	0.6577	0.1865	0.4593	0.4225	0.3762	0.4842	0.4593	0.4107
Bradford	LOW	0.2124	0.0512	0.0652	0.0592	0.0564	0.0696	0.0652	0.0584
	HIGH	0.2684	0.0688	0.0984	0.0896	0.0832	0.1052	0.0984	0.0876
	WGHTD AVE	0.2166	0.0517	0.0664	0.0603	0.0574	0.0709	0.0664	0.0591
Brevard	LOW	0.4048	0.1120	0.2084	0.1912	0.1724	0.2204	0.2084	0.1864
	HIGH	1.4660	0.5080	1.4292	1.3372	1.1840	1.4864	1.4292	1.3024
	WGHTD AVE	0.5529	0.1593	0.3346	0.3075	0.2749	0.3531	0.3346	0.2991
Broward	LOW	0.9012	0.3036	0.7268	0.6728	0.5956	0.7620	0.7268	0.6544

	HIGH	1.7212	0.6256	1.7156	1.6012	1.4136	1.7868	1.7156	1.5580
	WGHTD AVE	1.1645	0.4007	1.0288	0.9556	0.8444	1.0757	1.0288	0.9293
Calhoun	**LOW**	0.2332	0.0576	0.0756	0.0688	0.0652	0.0812	0.0756	0.0676
	HIGH	0.3204	0.0864	0.1320	0.1200	0.1104	0.1408	0.1320	0.1168
	WGHTD AVE	0.2666	0.0664	0.0927	0.0843	0.0790	0.0993	0.0927	0.0824
Charlotte	**LOW**	0.5280	0.1532	0.2956	0.2700	0.2420	0.3136	0.2956	0.2624
	HIGH	1.3520	0.4720	1.2800	1.1916	1.0508	1.3356	1.2800	1.1588
	WGHTD AVE	0.6291	0.1891	0.4008	0.3674	0.3270	0.4237	0.4008	0.3568
Citrus	**LOW**	0.2956	0.0740	0.1172	0.1076	0.0992	0.1244	0.1172	0.1052
	HIGH	0.4436	0.1244	0.2380	0.2184	0.1968	0.2516	0.2380	0.2128
	WGHTD AVE	0.3866	0.1040	0.1852	0.1699	0.1541	0.1962	0.1852	0.1656
Clay	**LOW**	0.2060	0.0496	0.0636	0.0580	0.0552	0.0680	0.0636	0.0568
	HIGH	0.3004	0.0784	0.1152	0.1048	0.0968	0.1236	0.1152	0.1020
	WGHTD AVE	0.2381	0.0604	0.0849	0.0773	0.0723	0.0906	0.0849	0.0758
Collier	**LOW**	0.6140	0.1780	0.3380	0.3080	0.2760	0.3596	0.3380	0.2992
	HIGH	1.2744	0.4412	1.1072	1.0212	0.8976	1.1628	1.1072	0.9912
	WGHTD AVE	0.7512	0.2338	0.5024	0.4600	0.4080	0.5314	0.5024	0.4465
Columbia	**LOW**	0.1340	0.0304	0.0352	0.0324	0.0316	0.0376	0.0352	0.0320
	HIGH	0.2180	0.0548	0.0764	0.0696	0.0652	0.0816	0.0764	0.0680
	WGHTD AVE	0.1965	0.0487	0.0633	0.0579	0.0546	0.0679	0.0633	0.0566
De Soto	**LOW**	0.4688	0.1264	0.2160	0.1964	0.1784	0.2300	0.2160	0.1912
	HIGH	0.5880	0.1740	0.3448	0.3148	0.2812	0.3656	0.3448	0.3060

	WGHTD AVE	0.5230	0.1502	0.2792	0.2551	0.2291	0.2964	0.2792	0.2479
Dixie	LOW	0.2416	0.0644	0.1028	0.0940	0.0864	0.1092	0.1028	0.0916
	HIGH	0.5044	0.1596	0.3404	0.3140	0.2812	0.3580	0.3404	0.3060
	WGHTD AVE	0.2727	0.0740	0.1250	0.1144	0.1045	0.1326	0.1250	0.1116
Duval	LOW	0.1276	0.0288	0.0336	0.0308	0.0300	0.0356	0.0336	0.0304
	HIGH	0.4948	0.1676	0.4028	0.3744	0.3332	0.4212	0.4028	0.3648
	WGHTD AVE	0.2415	0.0634	0.1005	0.0920	0.0847	0.1068	0.1005	0.0898
Escambia	LOW	0.4184	0.1264	0.2268	0.2060	0.1852	0.2416	0.2268	0.2000
	HIGH	1.7684	0.6760	1.8296	1.7076	1.5076	1.9056	1.8296	1.6616
	WGHTD AVE	0.9014	0.3073	0.7531	0.6958	0.6153	0.7906	0.7531	0.6761
Flagler	LOW	0.3592	0.0944	0.1560	0.1424	0.1296	0.1664	0.1560	0.1388
	HIGH	0.6080	0.1900	0.4240	0.3904	0.3464	0.4468	0.4240	0.3792
	WGHTD AVE	0.4431	0.1249	0.2507	0.2300	0.2061	0.2653	0.2507	0.2236
Franklin	LOW	0.5280	0.1700	0.3532	0.3248	0.2896	0.3728	0.3532	0.3156
	HIGH	1.1564	0.4272	1.1336	1.0592	0.9380	1.1808	1.1336	1.0312
	WGHTD AVE	0.7427	0.2525	0.6077	0.5627	0.4989	0.6371	0.6077	0.5472
Gadsen	LOW	0.1700	0.0400	0.0484	0.0444	0.0428	0.0520	0.0484	0.0436
	HIGH	0.2504	0.0636	0.0868	0.0788	0.0740	0.0932	0.0868	0.0772
	WGHTD AVE	0.1834	0.0448	0.0561	0.0513	0.0488	0.0600	0.0561	0.0504
Gilchrist	LOW	0.2132	0.0536	0.0756	0.0688	0.0644	0.0804	0.0756	0.0676
	HIGH	0.3076	0.0844	0.1360	0.1240	0.1136	0.1452	0.1360	0.1208
	WGHTD AVE	0.2972	0.0814	0.1295	0.1181	0.1083	0.1382	0.1295	0.1151

Glades	LOW	0.5400	0.1476	0.2560	0.2332	0.2112	0.2728	0.2560	0.2268
	HIGH	0.5788	0.1620	0.2936	0.2676	0.2412	0.3120	0.2936	0.2600
	WGHTD AVE	0.5788	0.1620	0.2936	0.2676	0.2412	0.3120	0.2936	0.2600
Gulf	LOW	0.3300	0.0916	0.1476	0.1344	0.1228	0.1572	0.1476	0.1308
	HIGH	0.5324	0.1672	0.3344	0.3068	0.2748	0.3536	0.3344	0.2984
	WGHTD AVE	0.4752	0.1355	0.2783	0.2551	0.2292	0.2947	0.2783	0.2481
Hamilton	LOW	0.1184	0.0268	0.0312	0.0288	0.0280	0.0336	0.0312	0.0284
	HIGH	0.1792	0.0440	0.0592	0.0540	0.0508	0.0632	0.0592	0.0528
	WGHTD AVE	0.1651	0.0413	0.0524	0.0479	0.0453	0.0560	0.0524	0.0470
Hardee	LOW	0.4728	0.1276	0.2156	0.1960	0.1780	0.2300	0.2156	0.1908
	HIGH	0.5652	0.1640	0.3144	0.2868	0.2568	0.3340	0.3144	0.2784
	WGHTD AVE	0.4854	0.1319	0.2266	0.2061	0.1868	0.2416	0.2266	0.2005
Hendry	LOW	0.5672	0.1588	0.2864	0.2608	0.2352	0.3048	0.2864	0.2536
	HIGH	0.7172	0.2144	0.4324	0.3952	0.3524	0.4584	0.4324	0.3836
	WGHTD AVE	0.6603	0.1911	0.3754	0.3427	0.3064	0.3986	0.3754	0.3327
Hernando	LOW	0.3260	0.0812	0.1228	0.1120	0.1036	0.1308	0.1228	0.1096
	HIGH	0.4464	0.1256	0.2384	0.2188	0.1964	0.2520	0.2384	0.2128
	WGHTD AVE	0.4102	0.1138	0.2103	0.1926	0.1738	0.2227	0.2103	0.1875
Highlands	LOW	0.4208	0.1060	0.1588	0.1444	0.1332	0.1700	0.1588	0.1408
	HIGH	0.5492	0.1512	0.2652	0.2416	0.2184	0.2824	0.2652	0.2348
	WGHTD AVE	0.4589	0.1197	0.1909	0.1735	0.1587	0.2039	0.1909	0.1691

Hillsborough	LOW	0.3740	0.1012	0.1776	0.1620	0.1468	0.1888	0.1776	0.1580
	HIGH	0.8048	0.2656	0.6284	0.5788	0.5104	0.6612	0.6284	0.5616
	WGHTD AVE	0.4791	0.1395	0.2758	0.2525	0.2259	0.2920	0.2758	0.2454
Holmes	LOW	0.2812	0.0740	0.1060	0.0960	0.0892	0.1132	0.1060	0.0940
	HIGH	0.4008	0.1172	0.2060	0.1880	0.1700	0.2188	0.2060	0.1828
	WGHTD AVE	0.3011	0.0801	0.1206	0.1094	0.1010	0.1286	0.1206	0.1070
Indian River	LOW	0.5396	0.1540	0.2968	0.2720	0.2444	0.3144	0.2968	0.2648
	HIGH	1.4080	0.4860	1.3512	1.2628	1.1176	1.4064	1.3512	1.2296
	WGHTD AVE	0.7086	0.2156	0.4805	0.4427	0.3936	0.5062	0.4805	0.4303
Jackson	LOW	0.1680	0.0388	0.0456	0.0416	0.0404	0.0484	0.0456	0.0412
	HIGH	0.3004	0.0800	0.1188	0.1076	0.0992	0.1272	0.1188	0.1048
	WGHTD AVE	0.2421	0.0609	0.0822	0.0747	0.0702	0.0880	0.0822	0.0732
Jefferson	LOW	0.1496	0.0364	0.0488	0.0444	0.0420	0.0520	0.0488	0.0436
	HIGH	0.1880	0.0496	0.0772	0.0704	0.0648	0.0820	0.0772	0.0688
	WGHTD AVE	0.1518	0.0377	0.0506	0.0461	0.0435	0.0539	0.0506	0.0452
Lafayette	LOW	0.1712	0.0428	0.0604	0.0552	0.0516	0.0644	0.0604	0.0540
	HIGH	0.2112	0.0544	0.0792	0.0724	0.0672	0.0848	0.0792	0.0708
	WGHTD AVE	0.2004	0.0494	0.0736	0.0673	0.0625	0.0787	0.0736	0.0658
Lake	LOW	0.2624	0.0612	0.0796	0.0732	0.0692	0.0852	0.0796	0.0716
	HIGH	0.5588	0.1620	0.3128	0.2856	0.2560	0.3316	0.3128	0.2776
	WGHTD AVE	0.4145	0.1093	0.1760	0.1603	0.1464	0.1876	0.1760	0.1562
Lee	LOW	0.5580	0.1616	0.3096	0.2820	0.2532	0.3292	0.3096	0.2740

	HIGH	1.1532	0.3944	0.9992	0.9240	0.8144	1.0476	0.9992	0.8976
	WGHTD AVE	0.6571	0.1972	0.4061	0.3713	0.3308	0.4301	0.4061	0.3607
Leon	LOW	0.1264	0.0292	0.0352	0.0324	0.0312	0.0372	0.0352	0.0320
	HIGH	0.2292	0.0592	0.0864	0.0788	0.0732	0.0924	0.0864	0.0772
	WGHTD AVE	0.1974	0.0488	0.0677	0.0619	0.0580	0.0724	0.0677	0.0605
Levy	LOW	0.2160	0.0540	0.0756	0.0692	0.0648	0.0808	0.0756	0.0676
	HIGH	0.4088	0.1212	0.2264	0.2080	0.1872	0.2392	0.2264	0.2028
	WGHTD AVE	0.2985	0.0821	0.1346	0.1230	0.1125	0.1431	0.1346	0.1200
Liberty	LOW	0.2240	0.0548	0.0700	0.0640	0.0608	0.0752	0.0700	0.0628
	HIGH	0.2368	0.0596	0.0848	0.0772	0.0720	0.0904	0.0848	0.0756
	WGHTD AVE	0.2261	0.0556	0.0738	0.0674	0.0637	0.0791	0.0738	0.0661
Madison	LOW	0.1248	0.0288	0.0348	0.0320	0.0308	0.0372	0.0348	0.0316
	HIGH	0.1756	0.0440	0.0616	0.0560	0.0524	0.0656	0.0616	0.0548
	WGHTD AVE	0.1602	0.0379	0.0513	0.0470	0.0444	0.0549	0.0513	0.0460
Manatee	LOW	0.5044	0.1504	0.3076	0.2820	0.2512	0.3256	0.3076	0.2740
	HIGH	1.2260	0.4220	1.1488	1.0712	0.9472	1.1976	1.1488	1.0424
	WGHTD AVE	0.6435	0.1848	0.4535	0.4178	0.3705	0.4775	0.4535	0.4060
Marion	LOW	0.2100	0.0456	0.0540	0.0500	0.0484	0.0576	0.0540	0.0492
	HIGH	0.4400	0.1224	0.2284	0.2092	0.1888	0.2416	0.2284	0.2040
	WGHTD AVE	0.3359	0.0834	0.1260	0.1150	0.1064	0.1343	0.1260	0.1124
Martin	LOW	0.6484	0.1972	0.3964	0.3636	0.3256	0.4188	0.3964	0.3536
	HIGH	1.5788	0.5656	1.5208	1.4184	1.2532	1.5852	1.5208	1.3800

	WGHTD AVE	0.8653	0.2719	0.6458	0.5971	0.5305	0.6780	0.6458	0.5806
Miami-Dade	LOW	0.7952	0.2636	0.6088	0.5620	0.4980	0.6396	0.6088	0.5460
	HIGH	2.6444	0.9808	2.9204	2.7468	2.4336	3.0252	2.9204	2.6776
	WGHTD AVE	1.4760	0.4937	1.4030	1.3071	1.1542	1.4634	1.4030	1.2715
Monroe	LOW	1.2732	0.4864	1.2444	1.1576	1.0228	1.2996	1.2444	1.1256
	HIGH	3.3148	1.3088	3.8888	3.6680	3.2580	4.0204	3.8888	3.5788
	WGHTD AVE	2.5740	1.0664	2.9118	2.7346	2.4222	3.0195	2.9118	2.6649
Nassau	LOW	0.1384	0.0324	0.0408	0.0372	0.0356	0.0436	0.0408	0.0368
	HIGH	0.2256	0.0620	0.1044	0.0956	0.0872	0.1108	0.1044	0.0932
	WGHTD AVE	0.2034	0.0498	0.0828	0.0755	0.0699	0.0882	0.0828	0.0740
Okaloosa	LOW	0.3968	0.1176	0.2076	0.1888	0.1700	0.2212	0.2076	0.1836
	HIGH	1.0420	0.3784	0.9116	0.8420	0.7432	0.9564	0.9116	0.8180
	WGHTD AVE	0.9199	0.3020	0.7619	0.7027	0.6209	0.8006	0.7619	0.6825
Okeechobee	LOW	0.4932	0.1304	0.2160	0.1968	0.1792	0.2304	0.2160	0.1916
	HIGH	0.5548	0.1528	0.2712	0.2472	0.2232	0.2888	0.2712	0.2404
	WGHTD AVE	0.5385	0.1459	0.2522	0.2297	0.2080	0.2688	0.2522	0.2235
Orange	LOW	0.3348	0.0800	0.1108	0.1012	0.0948	0.1184	0.1108	0.0992
	HIGH	0.5368	0.1524	0.2884	0.2636	0.2368	0.3060	0.2884	0.2564
	WGHTD AVE	0.3975	0.1012	0.1556	0.1417	0.1304	0.1660	0.1556	0.1382
Osceola	LOW	0.3740	0.0920	0.1328	0.1208	0.1124	0.1420	0.1328	0.1180
	HIGH	0.4736	0.1272	0.2164	0.1972	0.1792	0.2304	0.2164	0.1920
	WGHTD AVE	0.4086	0.1041	0.1590	0.1447	0.1333	0.1698	0.1590	0.1412

Palm Beach	LOW	0.7348	0.2324	0.5032	0.4640	0.4132	0.5300	0.5032	0.4508
	HIGH	1.8436	0.6672	1.8312	1.7104	1.5112	1.9068	1.8312	1.6648
	WGHTD AVE	1.0585	0.3548	0.8885	0.8249	0.7305	0.9296	0.8885	0.8023
Pasco	LOW	0.3540	0.0884	0.1328	0.1208	0.1116	0.1416	0.1328	0.1180
	HIGH	0.4848	0.1424	0.2884	0.2644	0.2364	0.3052	0.2884	0.2572
	WGHTD AVE	0.4258	0.1192	0.2237	0.2047	0.1842	0.2371	0.2237	0.1991
Pinellas	LOW	0.4168	0.1180	0.2236	0.2048	0.1840	0.2372	0.2236	0.1992
	HIGH	1.4644	0.5200	1.4664	1.3692	1.2072	1.5268	1.4664	1.3324
	WGHTD AVE	0.5525	0.1628	0.3686	0.3391	0.3014	0.3886	0.3686	0.3296
Polk	LOW	0.3824	0.0944	0.1360	0.1236	0.1148	0.1456	0.1360	0.1208
	HIGH	0.6460	0.1928	0.3876	0.3540	0.3156	0.4108	0.3876	0.3440
	WGHTD AVE	0.4555	0.1222	0.2036	0.1851	0.1682	0.2171	0.2036	0.1802
Putnam	LOW	0.2448	0.0600	0.0784	0.0712	0.0672	0.0840	0.0784	0.0696
	HIGH	0.3288	0.0892	0.1396	0.1268	0.1160	0.1492	0.1396	0.1236
	WGHTD AVE	0.3042	0.0803	0.1198	0.1088	0.1004	0.1282	0.1198	0.1062
St. Johns	LOW	0.2140	0.0536	0.0760	0.0696	0.0648	0.0808	0.0760	0.0680
	HIGH	0.4652	0.1464	0.2984	0.2740	0.2448	0.3152	0.2984	0.2664
	WGHTD AVE	0.3738	0.1090	0.2111	0.1935	0.1742	0.2233	0.2111	0.1883
St. Lucie	LOW	0.5692	0.1680	0.3208	0.2936	0.2640	0.3396	0.3208	0.2856
	HIGH	0.9836	0.3312	0.7956	0.7372	0.6528	0.8340	0.7956	0.7168
	WGHTD AVE	0.7675	0.2424	0.5385	0.4966	0.4419	0.5666	0.5385	0.4828

Santa Rosa	LOW	0.3864	0.1112	0.1852	0.1680	0.1524	0.1976	0.1852	0.1636
	HIGH	1.0968	0.4016	0.9784	0.9044	0.7980	1.0260	0.9784	0.8784
	WGHTD AVE	0.9407	0.2818	0.7875	0.7273	0.6428	0.8269	0.7875	0.7065
Sarasota	LOW	0.4860	0.1444	0.2948	0.2696	0.2408	0.3120	0.2948	0.2620
	HIGH	0.6932	0.2180	0.4836	0.4440	0.3936	0.5100	0.4836	0.4312
	WGHTD AVE	0.5885	0.1813	0.3909	0.3587	0.3186	0.4128	0.3909	0.3483
Seminole	LOW	0.3580	0.0884	0.1292	0.1176	0.1092	0.1380	0.1292	0.1148
	HIGH	0.4512	0.1228	0.2184	0.1996	0.1808	0.2320	0.2184	0.1944
	WGHTD AVE	0.3846	0.0966	0.1457	0.1326	0.1224	0.1557	0.1457	0.1295
Sumter	LOW	0.3404	0.0836	0.1236	0.1132	0.1048	0.1320	0.1236	0.1104
	HIGH	0.4268	0.1132	0.1904	0.1736	0.1580	0.2028	0.1904	0.1692
	WGHTD AVE	0.3979	0.1041	0.1691	0.1543	0.1410	0.1802	0.1691	0.1504
Suwanee	LOW	0.1340	0.0308	0.0368	0.0340	0.0328	0.0396	0.0368	0.0336
	HIGH	0.2596	0.0692	0.1072	0.0980	0.0900	0.1144	0.1072	0.0956
	WGHTD AVE	0.1633	0.0398	0.0521	0.0478	0.0452	0.0558	0.0521	0.0470
Taylor	LOW	0.1696	0.0424	0.0600	0.0548	0.0512	0.0640	0.0600	0.0536
	HIGH	0.3124	0.0900	0.1636	0.1500	0.1360	0.1732	0.1636	0.1464
	WGHTD AVE	0.2338	0.0660	0.1104	0.1011	0.0922	0.1172	0.1104	0.0986
Union	LOW	0.1584	0.0364	0.0432	0.0396	0.0380	0.0460	0.0432	0.0388
	HIGH	0.2324	0.0572	0.0756	0.0688	0.0648	0.0812	0.0756	0.0676
	WGHTD AVE	0.1990	0.0465	0.0606	0.0552	0.0524	0.0649	0.0606	0.0542
Volusia	LOW	0.2788	0.0664	0.0928	0.0848	0.0792	0.0992	0.0928	0.0828

	HIGH	0.7304	0.2376	0.5756	0.5324	0.4712	0.6036	0.5756	0.5176
	WGHTD AVE	0.4506	0.1162	0.2337	0.2139	0.1927	0.2476	0.2337	0.2082
Wakulla	LOW	0.1784	0.0444	0.0608	0.0556	0.0524	0.0652	0.0608	0.0544
	HIGH	0.4260	0.1332	0.2668	0.2444	0.2184	0.2820	0.2668	0.2376
	WGHTD AVE	0.2748	0.0542	0.1310	0.1200	0.1090	0.1391	0.1310	0.1169
Walton	LOW	0.3276	0.0904	0.1416	0.1284	0.1172	0.1516	0.1416	0.1248
	HIGH	1.0344	0.3744	0.8968	0.8284	0.7312	0.9416	0.8968	0.8048
	WGHTD AVE	0.8503	0.2426	0.6870	0.6337	0.5606	0.7224	0.6870	0.6157
Washington	LOW	0.2756	0.0720	0.1048	0.0952	0.0884	0.1116	0.1048	0.0932
	HIGH	0.5708	0.1828	0.3732	0.3424	0.3060	0.3944	0.3732	0.3332
	WGHTD AVE	0.3885	0.1112	0.1954	0.1783	0.1615	0.2081	0.1954	0.1737
STATEWIDE	LOW	0.1184	0.0268	0.0312	0.0288	0.0280	0.0336	0.0312	0.0284
	HIGH	3.3148	1.3088	3.8888	3.6680	3.2580	4.0204	3.8888	3.5788
	WGHTD AVE	0.7115	0.2151	0.5200	0.4808	0.4273	0.5460	0.5200	0.4676

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - CONDO -- FRAME

COUNTY	LOSS COSTS	$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	LOW	0.1066	0.2250	0.0554	0.1496	0.0810	0.0702	0.3426	0.2984	0.2278
	HIGH	0.1322	0.2992	0.0794	0.2202	0.1358	0.1178	0.4586	0.4070	0.3190
	WGHTD AVE	0.1144	0.2481	0.0626	0.1705	0.0965	0.0838	0.3785	0.3317	0.2554
Baker	LOW	0.0648	0.1262	0.0284	0.0760	0.0348	0.0308	0.1906	0.1616	0.1204
	HIGH	0.0992	0.2082	0.0508	0.1364	0.0724	0.0628	0.3166	0.2752	0.2092
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Bay	LOW	0.1336	0.2974	0.0780	0.2124	0.1264	0.1094	0.4560	0.4032	0.3130
	HIGH	0.3956	1.5472	0.5682	1.9624	1.7668	1.5960	2.4302	2.3492	2.1772
	WGHTD AVE	0.2535	0.7515	0.2598	0.8062	0.6606	0.5835	1.1908	1.1188	0.9761
Bradford	LOW	0.1026	0.2152	0.0522	0.1396	0.0732	0.0640	0.3270	0.2838	0.2152
	HIGH	0.1228	0.2750	0.0712	0.1952	0.1156	0.1002	0.4202	0.3714	0.2880
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Brevard	LOW	0.3232	0.4706	0.1368	0.4990	0.3248	0.2836	0.8594	0.7886	0.6586
	HIGH	0.6730	1.9914	0.6906	2.6788	2.3716	2.1610	3.2566	3.1582	2.9518
	WGHTD AVE	0.4017	0.6631	0.2006	0.7498	0.5357	0.4708	1.1842	1.1024	0.9458
Broward	LOW	0.6478	1.5012	0.5290	1.9854	1.6846	1.5076	2.5786	2.4796	2.2612

	HIGH	0.9542	3.0508	1.1122	4.2676	3.8660	3.5144	5.0040	4.8908	4.6242
	WGHTD AVE	0.7566	1.9882	0.7124	2.6997	2.3605	2.1273	3.3522	3.2468	3.0078
Calhoun	LOW	0.1114	0.2370	0.0592	0.1586	0.0868	0.0754	0.3616	0.3156	0.2410
	HIGH	0.1402	0.3308	0.0906	0.2496	0.1588	0.1374	0.5076	0.4538	0.3572
	WGHTD AVE	0.1308	0.2908	0.0000	0.2050	0.1204	0.1040	0.4456	0.3938	0.3046
Charlotte	LOW	0.4068	0.6286	0.1916	0.6968	0.4722	0.4090	1.1448	1.0626	0.9018
	HIGH	0.6528	1.8266	0.6400	2.4426	2.1354	1.9262	3.0218	2.9244	2.7176
	WGHTD AVE	0.4685	1.2090	0.3411	1.3749	1.1127	0.9907	1.8870	1.7967	1.6128
Citrus	LOW	0.2674	0.3266	0.0862	0.3164	0.1724	0.1498	0.6186	0.5572	0.4478
	HIGH	0.3598	0.5186	0.1528	0.5646	0.3740	0.3268	0.9558	0.8808	0.7392
	WGHTD AVE	0.3249	0.4403	0.1256	0.4580	0.2824	0.2458	0.8196	0.7491	0.6182
Clay	LOW	0.1000	0.2090	0.0506	0.1366	0.0722	0.0628	0.3174	0.2752	0.2092
	HIGH	0.1360	0.3090	0.0818	0.2258	0.1376	0.1190	0.4736	0.4206	0.3288
	WGHTD AVE	0.1103	0.2409	0.0618	0.1703	0.0995	0.0866	0.3684	0.3239	0.2512
Collier	LOW	0.4816	0.7282	0.2224	0.8060	0.5412	0.4660	1.3358	1.2400	1.0486
	HIGH	0.6962	1.6902	0.5938	2.2098	1.8602	1.6466	2.8714	2.7626	2.5262
	WGHTD AVE	0.5266	0.9496	0.3078	1.1298	0.8467	0.7381	1.6854	1.5883	1.3883
Columbia	LOW	0.0694	0.1348	0.0304	0.0818	0.0380	0.0336	0.2036	0.1726	0.1290
	HIGH	0.1018	0.2226	0.0566	0.1546	0.0890	0.0774	0.3396	0.2980	0.2302
	WGHTD AVE	0.0889	0.1900	0.0455	0.1222	0.0645	0.0563	0.2849	0.2469	0.1876
De Soto	LOW	0.4070	0.5346	0.1526	0.5564	0.3338	0.2860	1.0086	0.9236	0.7596
	HIGH	0.4554	0.7046	0.2190	0.8014	0.5560	0.4806	1.2900	1.2012	1.0246
	WGHTD AVE	0.4240	0.6130	0.1862	0.6704	0.4402	0.3798	1.1337	1.0476	0.8801

Dixie	LOW	0.1076	0.2502	0.0676	0.1930	0.1248	0.1092	0.3836	0.3418	0.2714
	HIGH	0.1886	0.5586	0.1784	0.5688	0.4574	0.4078	0.8670	0.8086	0.6978
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Duval	LOW	0.0664	0.1280	0.0290	0.0782	0.0362	0.0320	0.1938	0.1640	0.1228
	HIGH	0.1692	0.5688	0.1932	0.6500	0.5582	0.5038	0.8842	0.8372	0.7512
	WGHTD AVE	0.1112	0.2568	0.0686	0.1961	0.1255	0.1098	0.3929	0.3490	0.2767
Escambia	LOW	0.1694	0.4430	0.1360	0.3942	0.2866	0.2470	0.6906	0.6328	0.5218
	HIGH	0.5036	2.1426	0.8048	2.8366	2.6058	2.3658	3.3636	3.2764	3.0822
	WGHTD AVE	0.3159	1.1657	0.4074	1.3787	1.2069	1.0789	1.8075	1.7318	1.5720
Flagler	LOW	0.3162	0.4056	0.1128	0.4110	0.2388	0.2046	0.7658	0.6966	0.5682
	HIGH	0.4076	0.7580	0.2458	0.9082	0.6942	0.6116	1.3336	1.2558	1.1032
	WGHTD AVE	0.3467	0.5936	0.1764	0.6626	0.4744	0.4155	1.0436	0.9714	0.8345
Franklin	LOW	0.1978	0.5764	0.1878	0.5832	0.4650	0.4104	0.9002	0.8386	0.7204
	HIGH	0.3446	1.3936	0.5088	1.7840	1.6192	1.4736	2.1766	2.1064	1.9616
	WGHTD AVE	0.3077	1.1929	0.4124	1.4729	1.3189	1.1954	1.8485	1.7802	1.6413
Gadsen	LOW	0.0842	0.1714	0.0406	0.1074	0.0536	0.0468	0.2600	0.2238	0.1682
	HIGH	0.1166	0.2556	0.0656	0.1766	0.1012	0.0876	0.3910	0.3442	0.2650
	WGHTD AVE	0.0928	0.0000	0.0000	0.1324	0.0728	0.0636	0.3002	0.2614	0.2000
Gilchrist	LOW	0.1002	0.2180	0.0552	0.1524	0.0882	0.0770	0.3326	0.2914	0.2256
	HIGH	0.1340	0.3198	0.0888	0.2524	0.1666	0.1448	0.4924	0.4422	0.3532
	WGHTD AVE	0.0000	0.3198	0.0000	0.2524	0.1666	0.1448	0.4924	0.4422	0.3532
Glades	LOW	0.4638	0.6194	0.1790	0.6528	0.3990	0.3416	1.1660	1.0700	0.8842

	HIGH	0.4822	0.6724	0.1988	0.7254	0.4630	0.3976	1.2550	1.1568	0.9650
	WGHTD AVE	0.4822	0.6724	0.0000	0.7254	0.4630	0.3976	1.2550	1.1568	0.9650
Gulf	**LOW**	0.1430	0.3432	0.0966	0.2722	0.1804	0.1562	0.5288	0.4748	0.3792
	HIGH	0.2038	0.5782	0.1840	0.5630	0.4390	0.3866	0.9002	0.8346	0.7084
	WGHTD AVE	0.2038	0.5782	0.1840	0.5630	0.4390	0.3866	0.9002	0.8346	0.7084
Hamilton	**LOW**	0.0610	0.1190	0.0270	0.0724	0.0340	0.0300	0.1800	0.1528	0.1142
	HIGH	0.0854	0.1824	0.0454	0.1232	0.0684	0.0594	0.2778	0.2422	0.1858
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hardee	**LOW**	0.4124	0.5386	0.1536	0.5594	0.3336	0.2848	1.0182	0.9318	0.7658
	HIGH	0.4502	0.6704	0.2052	0.7490	0.5052	0.4348	1.2366	1.1476	0.9714
	WGHTD AVE	0.4256	0.5788	0.1696	0.6170	0.3840	0.3282	1.0866	0.9998	0.8294
Hendry	**LOW**	0.4742	0.6596	0.1952	0.7118	0.4530	0.3882	1.2326	1.1366	0.9482
	HIGH	0.5456	0.8652	0.2718	0.9954	0.7020	0.6074	1.5778	1.4732	1.2624
	WGHTD AVE	0.5214	0.8084	0.2432	0.9041	0.6214	0.5363	1.4672	1.3655	1.1615
Hernando	**LOW**	0.3004	0.3582	0.0938	0.3432	0.1792	0.1538	0.6846	0.6160	0.4922
	HIGH	0.3634	0.5220	0.1548	0.5680	0.3778	0.3294	0.9646	0.8894	0.7460
	WGHTD AVE	0.3392	0.4487	0.1254	0.4816	0.3026	0.2626	0.8476	0.7768	0.6445
Highlands	**LOW**	0.3912	0.4638	0.1232	0.4490	0.2342	0.1988	0.8914	0.8050	0.6448
	HIGH	0.4680	0.6326	0.1842	0.6712	0.4156	0.3556	1.1880	1.0920	0.9044
	WGHTD AVE	0.4266	0.5251	0.1438	0.5349	0.3041	0.2592	1.0061	0.9163	0.7455
Hillsborough	**LOW**	0.3192	0.4284	0.1224	0.4480	0.2750	0.2372	0.8014	0.7334	0.6056
	HIGH	0.5010	1.0338	0.3508	1.3022	1.0452	0.9208	1.7988	1.7122	1.5342
	WGHTD AVE	0.3670	0.5614	0.1716	0.6271	0.4299	0.3733	1.0243	0.9502	0.8067

Holmes	LOW	0.1290	0.2890	0.0768	0.2098	0.1254	0.1082	0.4444	0.3938	0.3074
	HIGH	0.1680	0.4220	0.1252	0.3642	0.2586	0.2248	0.6558	0.5966	0.4882
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Indian River	LOW	0.4196	0.6372	0.1910	0.6970	0.4698	0.4098	1.1600	1.0728	0.9054
	HIGH	0.6638	1.9072	0.6594	2.5522	2.2460	2.0432	3.1312	3.0320	2.8252
	WGHTD AVE	0.4947	0.9585	0.2965	1.1349	0.8740	0.7736	1.6539	1.5602	1.3731
Jackson	LOW	0.0850	0.1690	0.0390	0.1030	0.0490	0.0432	0.2558	0.2186	0.1632
	HIGH	0.1356	0.3098	0.0836	0.2300	0.1424	0.1226	0.4768	0.4244	0.3330
	WGHTD AVE	0.0936	0.0000	0.0000	0.1170	0.0572	0.0502	0.2854	0.2450	0.1838
Jefferson	LOW	0.0726	0.1522	0.0374	0.1022	0.0558	0.0488	0.2316	0.2010	0.1540
	HIGH	0.0874	0.1944	0.0520	0.1476	0.0934	0.0814	0.2986	0.2644	0.2094
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Lafayette	LOW	0.0814	0.1750	0.0442	0.1222	0.0706	0.0618	0.2670	0.2332	0.1806
	HIGH	0.0974	0.2168	0.0562	0.1560	0.0936	0.0816	0.3314	0.2922	0.2276
	WGHTD AVE	0.0974	0.2168	0.0000	0.1560	0.0936	0.0816	0.3314	0.2922	0.2276
Lake	LOW	0.2538	0.2804	0.0682	0.2498	0.1060	0.0910	0.5410	0.4798	0.3748
	HIGH	0.4430	0.6630	0.2022	0.7396	0.5010	0.4328	1.2192	1.1306	0.9572
	WGHTD AVE	0.3981	0.5479	0.1632	0.5806	0.3635	0.3125	1.0222	0.9383	0.7786
Lee	LOW	0.4344	0.6622	0.2020	0.7342	0.4942	0.4244	1.2114	1.1240	0.9520
	HIGH	0.6306	1.5250	0.5298	1.9860	1.6706	1.4868	2.5852	2.4848	2.2708
	WGHTD AVE	0.4938	0.9451	0.2814	1.0727	0.8016	0.7004	1.6066	1.5123	1.3202
Leon	LOW	0.0646	0.1274	0.0294	0.0792	0.0382	0.0338	0.1930	0.1644	0.1236

	HIGH	0.1050	0.2354	0.0614	0.1700	0.1024	0.0892	0.3602	0.3184	0.2484
	WGHTD AVE	0.0979	0.2149	0.0548	0.1505	0.0875	0.0762	0.3281	0.2884	0.2233
Levy	LOW	0.1000	0.2208	0.0560	0.1532	0.0886	0.0774	0.3356	0.2942	0.2270
	HIGH	0.1662	0.4344	0.1304	0.3908	0.2980	0.2640	0.6736	0.6166	0.5114
	WGHTD AVE	0.1516	0.4176	0.1274	0.3908	0.2980	0.2640	0.6450	0.5934	0.4988
Liberty	LOW	0.1074	0.2270	0.0558	0.1486	0.0792	0.0688	0.3456	0.3008	0.2282
	HIGH	0.1114	0.2416	0.0616	0.1684	0.0994	0.0864	0.3694	0.3242	0.2490
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Madison	LOW	0.0626	0.1258	0.0294	0.0786	0.0386	0.0340	0.1906	0.1634	0.1228
	HIGH	0.0830	0.1794	0.0454	0.1248	0.0716	0.0624	0.2740	0.2398	0.1852
	WGHTD AVE	0.0830	0.1794	0.0454	0.1248	0.0716	0.0624	0.2740	0.2398	0.1852
Manatee	LOW	0.3722	0.6106	0.1910	0.6988	0.4982	0.4340	1.1000	1.0262	0.8822
	HIGH	0.5988	1.6512	0.5720	2.1950	1.9122	1.7296	2.7294	2.6372	2.4470
	WGHTD AVE	0.4479	1.0513	0.3188	1.2594	1.0239	0.9126	1.7179	1.6363	1.4723
Marion	LOW	0.2096	0.2188	0.0490	0.1802	0.0676	0.0590	0.4238	0.3704	0.2824
	HIGH	0.3610	0.5116	0.1494	0.5510	0.3568	0.3110	0.9468	0.8716	0.7282
	WGHTD AVE	0.3227	0.3852	0.1009	0.3723	0.1970	0.1689	0.7372	0.6651	0.5328
Martin	LOW	0.5592	0.9826	0.3274	1.1960	0.9170	0.8052	1.7698	1.6704	1.4576
	HIGH	0.9060	2.7484	0.9940	3.7990	3.4072	3.0954	4.5328	4.4176	4.1508
	WGHTD AVE	0.6715	1.4635	0.5102	1.9186	1.6005	1.4294	2.5511	2.4459	2.2130
Miami-Dade	LOW	0.6012	1.3114	0.4600	1.7146	1.4296	1.2712	2.2784	2.1842	1.9768
	HIGH	1.1950	4.6812	1.7058	6.6804	6.2402	5.7534	7.4492	7.3346	7.0588
	WGHTD AVE	0.8804	2.6468	0.9967	3.7235	3.3489	3.0383	4.4193	4.3116	4.0588

Monroe	LOW	0.6606	1.3952	0.5276	1.9212	1.6280	1.4428	2.4940	2.4052	2.1916
	HIGH	1.1342	4.0266	1.5520	5.8808	5.4816	5.0444	6.5840	6.4814	6.2258
	WGHTD AVE	0.9949	2.7481	1.1507	4.0586	3.6828	3.3466	4.7482	4.6464	4.3932
Nassau	LOW	0.0684	0.1400	0.0332	0.0894	0.0456	0.0400	0.2118	0.1820	0.1376
	HIGH	0.0998	0.2356	0.0658	0.1916	0.1292	0.1130	0.3632	0.3250	0.2622
	WGHTD AVE	0.0936	0.2149	0.0578	0.1645	0.1051	0.0919	0.3291	0.2917	0.2315
Okaloosa	LOW	0.1628	0.4186	0.1262	0.3648	0.2614	0.2258	0.6508	0.5938	0.4868
	HIGH	0.3358	1.1804	0.4286	1.4116	1.2298	1.0930	1.8660	1.7870	1.6178
	WGHTD AVE	0.3056	1.1136	0.3769	1.2807	1.1061	0.9812	1.7217	1.6442	1.4798
Okeechobee	LOW	0.4244	0.5584	0.1562	0.5640	0.3298	0.2830	1.0458	0.9528	0.7788
	HIGH	0.4576	0.6412	0.1870	0.6762	0.4246	0.3652	1.1890	1.0922	0.9068
	WGHTD AVE	0.4468	0.5956	0.1686	0.6086	0.3618	0.3098	1.1142	1.0176	0.8348
Orange	LOW	0.3140	0.3604	0.0902	0.3302	0.1552	0.1326	0.6968	0.6228	0.4900
	HIGH	0.4336	0.6306	0.1888	0.6922	0.4584	0.3966	1.1646	1.0764	0.9054
	WGHTD AVE	0.3658	0.4404	0.1181	0.4305	0.2304	0.1966	0.8438	0.7635	0.6134
Osceola	LOW	0.3534	0.4074	0.1054	0.3850	0.1912	0.1626	0.7868	0.7076	0.5618
	HIGH	0.4122	0.5392	0.1530	0.5586	0.3340	0.2864	1.0170	0.9300	0.7640
	WGHTD AVE	0.3761	0.4478	0.1194	0.4369	0.2310	0.1969	0.8611	0.7787	0.6248
Palm Beach	LOW	0.5820	1.1524	0.3924	1.4488	1.1604	1.0280	2.0320	1.9334	1.7182
	HIGH	1.0086	3.2306	1.1732	4.5004	4.0734	3.7094	5.2904	5.1688	4.8824
	WGHTD AVE	0.7158	1.7307	0.6151	2.3215	1.9930	1.7933	2.9663	2.8601	2.6233
Pasco	LOW	0.3078	0.3890	0.1026	0.3742	0.1946	0.1662	0.7464	0.6730	0.5382

	HIGH	0.3892	0.5816	0.1794	0.6568	0.4632	0.4048	1.0526	0.9754	0.8342
	WGHTD AVE	0.3502	0.4946	0.1457	0.5329	0.3448	0.2984	0.9161	0.8433	0.7048
Pinellas	LOW	0.3266	0.4902	0.1462	0.5328	0.3540	0.3076	0.8964	0.8272	0.6962
	HIGH	0.6458	2.0104	0.7102	2.7388	2.4500	2.2238	3.2754	3.1844	2.9940
	WGHTD AVE	0.3857	0.7368	0.2331	0.8726	0.6687	0.5913	1.2782	1.2036	1.0580
Polk	LOW	0.3578	0.4186	0.1086	0.3960	0.1968	0.1672	0.8084	0.7276	0.5780
	HIGH	0.4930	0.7786	0.2440	0.8936	0.6286	0.5436	1.4204	1.3254	1.1352
	WGHTD AVE	0.3991	0.5106	0.1440	0.5244	0.3061	0.2606	0.9689	0.8846	0.7236
Putnam	LOW	0.1162	0.2490	0.0616	0.1650	0.0896	0.0778	0.3788	0.3310	0.2524
	HIGH	0.1452	0.3408	0.0938	0.2634	0.1700	0.1466	0.5250	0.4702	0.3734
	WGHTD AVE	0.1406	0.3274	0.0880	0.2439	0.1525	0.1314	0.5005	0.4460	0.3512
St. Johns	LOW	0.1014	0.2186	0.0552	0.1532	0.0888	0.0776	0.3336	0.2918	0.2262
	HIGH	0.1794	0.5034	0.1602	0.4966	0.3888	0.3420	0.7858	0.7284	0.6216
	WGHTD AVE	0.1513	0.4083	0.1242	0.3790	0.2862	0.2523	0.6322	0.5804	0.4862
St. Lucie	LOW	0.5112	0.8378	0.2732	0.9936	0.7360	0.6430	1.5282	1.4344	1.2360
	HIGH	0.6936	1.6300	0.5740	2.1508	1.8258	1.6364	2.7918	2.6860	2.4504
	WGHTD AVE	0.6320	1.3962	0.4882	1.7725	1.4646	1.3048	2.3877	2.2848	2.0582
Santa Rosa	LOW	0.1652	0.4046	0.1180	0.3356	0.2302	0.1982	0.6290	0.5700	0.4608
	HIGH	0.3500	1.2510	0.4570	1.5146	1.3274	1.1814	1.9778	1.8974	1.7252
	WGHTD AVE	0.3325	1.1817	0.4280	1.4148	1.2355	1.1013	1.8628	1.7842	1.6174
Sarasota	LOW	0.3590	0.5872	0.1830	0.6698	0.4762	0.4140	1.0574	0.9858	0.8462
	HIGH	0.4664	0.8666	0.2830	1.0422	0.7952	0.6978	1.5292	1.4428	1.2676
	WGHTD AVE	0.4090	0.7224	0.2302	0.8477	0.6284	0.5491	1.2829	1.2043	1.0479

Seminole	LOW	0.3280	0.3916	0.1016	0.3668	0.1854	0.1586	0.7454	0.6698	0.5330
	HIGH	0.3732	0.5192	0.1492	0.5420	0.3380	0.2930	0.9608	0.8800	0.7288
	WGHTD AVE	0.3484	0.4237	0.1121	0.4038	0.2107	0.1801	0.8050	0.7260	0.5810
Sumter	LOW	0.3182	0.3720	0.0962	0.3522	0.1786	0.1534	0.7136	0.6414	0.5106
	HIGH	0.3738	0.4832	0.1354	0.4950	0.2914	0.2502	0.9118	0.8318	0.6806
	WGHTD AVE	0.3715	0.4809	0.1352	0.4918	0.2889	0.2481	0.9072	0.8274	0.6767
Suwanee	LOW	0.0676	0.1354	0.0314	0.0840	0.0408	0.0360	0.2048	0.1752	0.1316
	HIGH	0.1162	0.2682	0.0722	0.2036	0.1294	0.1126	0.4116	0.3664	0.2898
	WGHTD AVE	0.1122	0.2032	0.0643	0.1726	0.1064	0.0927	0.3580	0.3168	0.2488
Taylor	LOW	0.0802	0.1732	0.0440	0.1214	0.0700	0.0610	0.2644	0.2314	0.1792
	HIGH	0.1288	0.3312	0.0968	0.2882	0.2078	0.1832	0.5100	0.4632	0.3810
	WGHTD AVE	0.1288	0.3312	0.0968	0.2882	0.2078	0.1832	0.5100	0.4632	0.3810
Union	LOW	0.0802	0.1596	0.0366	0.0980	0.0466	0.0412	0.2412	0.2060	0.1544
	HIGH	0.1096	0.2366	0.0588	0.1582	0.0872	0.0754	0.3600	0.3148	0.2406
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Volusia	LOW	0.2658	0.3010	0.0754	0.2758	0.1312	0.1120	0.5794	0.5166	0.4070
	HIGH	0.4588	0.9366	0.3122	1.1752	0.9486	0.8448	1.6180	1.5386	1.3794
	WGHTD AVE	0.3509	0.5458	0.1539	0.5817	0.3892	0.3389	0.9731	0.8987	0.7574
Wakulla	LOW	0.0850	0.1820	0.0456	0.1250	0.0706	0.0616	0.2774	0.2424	0.1868
	HIGH	0.1664	0.4604	0.1456	0.4480	0.3470	0.3044	0.7186	0.6650	0.5650
	WGHTD AVE	0.1140	0.2666	0.0920	0.2300	0.1604	0.1405	0.4208	0.3798	0.3097
Walton	LOW	0.1446	0.3400	0.0954	0.2662	0.1732	0.1490	0.5264	0.4726	0.3762

	HIGH	0.3394	1.1686	0.4222	1.3906	1.2066	1.0712	1.8498	1.7694	1.5994
	WGHTD AVE	0.2934	0.7671	0.3119	0.8986	0.7483	0.6609	1.2903	1.2180	1.0721
Washington	LOW	0.1266	0.2830	0.0746	0.2052	0.1240	0.1076	0.4340	0.3838	0.2994
	HIGH	0.2142	0.6198	0.2008	0.6178	0.4880	0.4294	0.9680	0.9008	0.7696
	WGHTD AVE	0.1266	0.2830	0.0746	0.2052	0.1240	0.1076	0.4340	0.3838	0.2994
STATEWIDE	LOW	0.0610	0.1190	0.0270	0.0724	0.0340	0.0300	0.1800	0.1528	0.1142
	HIGH	1.1950	4.6812	1.7058	6.6804	6.2402	5.7534	7.4492	7.3346	7.0588
	WGHTD AVE	0.4241	0.9298	0.2966	1.1119	0.8948	0.7966	1.5615	1.4807	1.3170

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - CONDO -- MASONRY

COUNTY	LOSS COSTS	$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	LOW	0.1030	0.2214	0.0540	0.1430	0.0756	0.0656	0.3344	0.2906	0.2200
	HIGH	0.1268	0.2912	0.0762	0.2058	0.1232	0.1066	0.4426	0.3912	0.3024
	WGHTD AVE	0.1125	0.2473	0.0620	0.1656	0.0919	0.0796	0.3753	0.3283	0.2503
Baker	LOW	0.0634	0.1256	0.0282	0.0746	0.0338	0.0300	0.1886	0.1598	0.1184
	HIGH	0.0962	0.2050	0.0496	0.1308	0.0680	0.0588	0.3096	0.2684	0.2022
	WGHTD AVE	0.0962	0.0000	0.0000	0.1308	0.0680	0.0588	0.3096	0.2684	0.2022
Bay	LOW	0.1284	0.2900	0.0752	0.2002	0.1156	0.0998	0.4410	0.3886	0.2982
	HIGH	0.3526	1.3036	0.4842	1.6004	1.4122	1.2562	2.0606	1.9806	1.8094
	WGHTD AVE	0.2379	0.7208	0.2404	0.7450	0.6010	0.5260	1.1297	1.0578	0.9133
Bradford	LOW	0.0996	0.2124	0.0512	0.1346	0.0692	0.0604	0.3202	0.2774	0.2086
	HIGH	0.1182	0.2686	0.0688	0.1842	0.1064	0.0920	0.4070	0.3586	0.2750
	WGHTD AVE	0.1001	0.2393	0.0597	0.1476	0.0782	0.0678	0.3459	0.3008	0.2273
Brevard	LOW	0.2874	0.4046	0.1118	0.3980	0.2352	0.2032	0.7340	0.6648	0.5456
	HIGH	0.5632	1.4662	0.5082	1.9042	1.6226	1.4530	2.4414	2.3456	2.1556
	WGHTD AVE	0.3665	0.5946	0.1784	0.6414	0.4356	0.3784	1.0575	0.9764	0.8285
Broward	LOW	0.4900	0.9012	0.3036	1.0862	0.8302	0.7282	1.6002	1.5058	1.3212

	HIGH	0.6880	1.7212	0.6256	2.2932	1.9602	1.7452	2.9276	2.8204	2.5942
	WGHTD AVE	0.5687	1.1968	0.4146	1.5143	1.2259	1.0832	2.0817	1.9812	1.7779
Calhoun	LOW	0.1078	0.2330	0.0576	0.1514	0.0810	0.0704	0.3526	0.3070	0.2324
	HIGH	0.1340	0.3204	0.0864	0.2320	0.1432	0.1236	0.4874	0.4338	0.3370
	WGHTD AVE	0.1172	0.2330	0.0000	0.1717	0.0953	0.0825	0.3907	0.3423	0.2607
Charlotte	LOW	0.3578	0.5280	0.1534	0.5440	0.3358	0.2876	0.9586	0.8784	0.7310
	HIGH	0.5454	1.3520	0.4720	1.7368	1.4566	1.2910	2.2744	2.1798	1.9894
	WGHTD AVE	0.3992	0.6335	0.1927	0.6963	0.4714	0.4067	1.1466	1.0612	0.9010
Citrus	LOW	0.2400	0.2956	0.0742	0.2672	0.1316	0.1140	0.5492	0.4892	0.3894
	HIGH	0.3180	0.4436	0.1242	0.4476	0.2696	0.2330	0.8122	0.7388	0.6094
	WGHTD AVE	0.2938	0.3934	0.1060	0.3835	0.2170	0.1875	0.7234	0.6540	0.5334
Clay	LOW	0.0970	0.2060	0.0496	0.1312	0.0680	0.0590	0.3108	0.2690	0.2028
	HIGH	0.1304	0.3004	0.0786	0.2114	0.1254	0.1078	0.4566	0.4040	0.3122
	WGHTD AVE	0.1076	0.2420	0.0619	0.1672	0.0968	0.0840	0.3666	0.3217	0.2477
Collier	LOW	0.4232	0.6142	0.1778	0.6290	0.3844	0.3276	1.1210	1.0274	0.8520
	HIGH	0.5842	1.2746	0.4412	1.5820	1.2650	1.1008	2.1940	2.0884	1.8710
	WGHTD AVE	0.4602	0.7803	0.2436	0.8710	0.6094	0.5243	1.3889	1.2940	1.1096
Columbia	LOW	0.0680	0.1340	0.0302	0.0802	0.0368	0.0328	0.2012	0.1706	0.1268
	HIGH	0.0982	0.2180	0.0548	0.1468	0.0822	0.0714	0.3298	0.2888	0.2206
	WGHTD AVE	0.0877	0.1855	0.0445	0.1184	0.0614	0.0536	0.2801	0.2423	0.1826
De Soto	LOW	0.3606	0.4688	0.1264	0.4520	0.2446	0.2086	0.8724	0.7894	0.6394
	HIGH	0.3980	0.5882	0.1738	0.6196	0.3928	0.3360	1.0728	0.9860	0.8248
	WGHTD AVE	0.3814	0.5392	0.1586	0.5558	0.3383	0.2893	0.9928	0.9081	0.7526

Dixie	LOW	0.1032	0.2416	0.0644	0.1788	0.1120	0.0974	0.3674	0.3260	0.2556
	HIGH	0.1754	0.5044	0.1598	0.4870	0.3790	0.3334	0.7816	0.7236	0.6130
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Duval	LOW	0.0650	0.1274	0.0288	0.0766	0.0352	0.0312	0.1918	0.1620	0.1206
	HIGH	0.1548	0.4950	0.1676	0.5396	0.4506	0.4006	0.7710	0.7242	0.6382
	WGHTD AVE	0.1062	0.2491	0.0653	0.1838	0.1149	0.1000	0.3777	0.3344	0.2624
Escambia	LOW	0.1592	0.4186	0.1262	0.3544	0.2502	0.2144	0.6468	0.5894	0.4786
	HIGH	0.4414	1.7684	0.6758	2.2812	2.0600	1.8402	2.7994	2.7130	2.5202
	WGHTD AVE	0.3063	1.0768	0.3880	1.2659	1.0944	0.9669	1.6990	1.6226	1.4599
Flagler	LOW	0.2812	0.3592	0.0944	0.3374	0.1766	0.1508	0.6678	0.6002	0.4828
	HIGH	0.3538	0.6080	0.1900	0.6802	0.4828	0.4188	1.0754	0.9996	0.8596
	WGHTD AVE	0.3202	0.5294	0.1561	0.5639	0.3819	0.3305	0.9316	0.8595	0.7292
Franklin	LOW	0.1838	0.5280	0.1700	0.5076	0.3932	0.3432	0.8206	0.7596	0.6416
	HIGH	0.3056	1.1562	0.4272	1.4326	1.2740	1.1404	1.8196	1.7500	1.6058
	WGHTD AVE	0.2525	0.7741	0.2947	0.9159	0.7799	0.6909	1.2661	1.2006	1.0695
Gadsen	LOW	0.0820	0.1698	0.0400	0.1044	0.0512	0.0450	0.2558	0.2200	0.1640
	HIGH	0.1124	0.2504	0.0636	0.1676	0.0934	0.0808	0.3800	0.3334	0.2540
	WGHTD AVE	0.0840	0.1754	0.0418	0.1098	0.0554	0.0484	0.2646	0.2280	0.1708
Gilchrist	LOW	0.0968	0.2134	0.0536	0.1444	0.0814	0.0708	0.3228	0.2822	0.2160
	HIGH	0.1278	0.3076	0.0842	0.2324	0.1486	0.1286	0.4698	0.4200	0.3308
	WGHTD AVE	0.0968	0.2134	0.0536	0.1444	0.0814	0.0708	0.3228	0.2822	0.2160
Glades	LOW	0.4102	0.5400	0.1474	0.5266	0.2908	0.2474	1.0034	0.9096	0.7400

	HIGH	0.4250	0.5786	0.1618	0.5772	0.3336	0.2844	1.0692	0.9732	0.7980
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Gulf	LOW	0.1364	0.3302	0.0914	0.2502	0.1610	0.1390	0.5042	0.4506	0.3550
	HIGH	0.1900	0.5324	0.1670	0.4914	0.3712	0.3236	0.8244	0.7592	0.6332
	WGHTD AVE	0.1364	0.5309	0.0000	0.4580	0.3421	0.2981	0.7801	0.7165	0.5947
Hamilton	LOW	0.0596	0.1184	0.0268	0.0712	0.0330	0.0292	0.1778	0.1508	0.1122
	HIGH	0.0826	0.1792	0.0442	0.1176	0.0636	0.0554	0.2708	0.2356	0.1788
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hardee	LOW	0.3654	0.4728	0.1274	0.4548	0.2444	0.2078	0.8808	0.7964	0.6448
	HIGH	0.3944	0.5652	0.1642	0.5844	0.3588	0.3056	1.0366	0.9498	0.7888
	WGHTD AVE	0.3654	0.0000	0.0000	0.4548	0.2444	0.2078	0.8808	0.7964	0.6448
Hendry	LOW	0.4176	0.5672	0.1588	0.5662	0.3260	0.2776	1.0496	0.9558	0.7836
	HIGH	0.4754	0.7170	0.2146	0.7646	0.4940	0.4226	1.3046	1.2026	1.0102
	WGHTD AVE	0.4625	0.6883	0.1989	0.7217	0.4574	0.3910	1.2499	1.1496	0.9614
Hernando	LOW	0.2686	0.3262	0.0810	0.2916	0.1376	0.1180	0.6100	0.5428	0.4300
	HIGH	0.3206	0.4462	0.1256	0.4498	0.2706	0.2336	0.8186	0.7450	0.6140
	WGHTD AVE	0.2959	0.3975	0.1089	0.3919	0.2243	0.1930	0.7332	0.6640	0.5427
Highlands	LOW	0.3496	0.4210	0.1058	0.3798	0.1788	0.1520	0.7916	0.7072	0.5610
	HIGH	0.4134	0.5494	0.1512	0.5392	0.3014	0.2566	1.0194	0.9252	0.7542
	WGHTD AVE	0.3720	0.4570	0.1188	0.4288	0.2167	0.1841	0.8610	0.7742	0.6203
Hillsborough	LOW	0.2830	0.3740	0.1012	0.3624	0.2012	0.1724	0.6914	0.6248	0.5080
	HIGH	0.4276	0.8048	0.2658	0.9534	0.7184	0.6228	1.4134	1.3290	1.1658
	WGHTD AVE	0.3276	0.4840	0.1416	0.5065	0.3209	0.2757	0.8800	0.8069	0.6742

Holmes	LOW	0.1236	0.2814	0.0738	0.1970	0.1148	0.0988	0.4288	0.3786	0.2920
	HIGH	0.1588	0.4008	0.1172	0.3298	0.2270	0.1962	0.6180	0.5594	0.4508
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Indian River	LOW	0.3706	0.5396	0.1538	0.5474	0.3360	0.2898	0.9782	0.8930	0.7396
	HIGH	0.5568	1.4080	0.4860	1.8156	1.5350	1.3718	2.3542	2.2576	2.0672
	WGHTD AVE	0.4449	0.8062	0.2495	0.9134	0.6658	0.5812	1.4069	1.3141	1.1386
Jackson	LOW	0.0830	0.1682	0.0388	0.1014	0.0478	0.0422	0.2530	0.2160	0.1602
	HIGH	0.1298	0.3006	0.0802	0.2146	0.1290	0.1110	0.4586	0.4070	0.3154
	WGHTD AVE	0.0923	0.1973	0.0466	0.1193	0.0585	0.0511	0.2928	0.2514	0.1877
Jefferson	LOW	0.0704	0.1498	0.0364	0.0978	0.0522	0.0456	0.2262	0.1958	0.1486
	HIGH	0.0842	0.1880	0.0496	0.1374	0.0840	0.0730	0.2866	0.2528	0.1976
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Lafayette	LOW	0.0788	0.1710	0.0428	0.1158	0.0650	0.0566	0.2592	0.2258	0.1730
	HIGH	0.0938	0.2112	0.0542	0.1468	0.0858	0.0744	0.3204	0.2816	0.2172
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Lake	LOW	0.2294	0.2624	0.0612	0.2210	0.0880	0.0760	0.4928	0.4328	0.3372
	HIGH	0.3884	0.5590	0.1618	0.5770	0.3558	0.3046	1.0224	0.9356	0.7774
	WGHTD AVE	0.3392	0.4354	0.1151	0.4129	0.2183	0.1862	0.8095	0.7295	0.5885
Lee	LOW	0.3820	0.5580	0.1616	0.5730	0.3530	0.3006	1.0162	0.9312	0.7734
	HIGH	0.5316	1.1534	0.3942	1.4266	1.1394	0.9972	1.9812	1.8838	1.6870
	WGHTD AVE	0.4303	0.6915	0.2088	0.7465	0.5004	0.4296	1.2370	1.1455	0.9708
Leon	LOW	0.0632	0.1266	0.0290	0.0772	0.0368	0.0324	0.1904	0.1620	0.1208

	HIGH	0.1010	0.2292	0.0592	0.1596	0.0936	0.0812	0.3480	0.3064	0.2364
	WGHTD AVE	0.0939	0.2077	0.0526	0.1405	0.0791	0.0687	0.3153	0.2761	0.2111
Levy	LOW	0.0966	0.2160	0.0542	0.1450	0.0816	0.0710	0.3258	0.2848	0.2174
	HIGH	0.1566	0.4088	0.1212	0.3498	0.2508	0.2196	0.6298	0.5734	0.4682
	WGHTD AVE	0.1246	0.3288	0.0772	0.2481	0.1669	0.1455	0.4769	0.4284	0.3426
Liberty	LOW	0.1038	0.2238	0.0546	0.1428	0.0746	0.0650	0.3382	0.2938	0.2210
	HIGH	0.1074	0.2370	0.0598	0.1590	0.0914	0.0792	0.3592	0.3146	0.2392
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Madison	LOW	0.0610	0.1248	0.0290	0.0766	0.0370	0.0326	0.1878	0.1606	0.1200
	HIGH	0.0802	0.1756	0.0440	0.1184	0.0660	0.0576	0.2662	0.2322	0.1776
	WGHTD AVE	0.0676	0.1416	0.0340	0.0912	0.0476	0.0418	0.2136	0.1842	0.1392
Manatee	LOW	0.3260	0.5044	0.1506	0.5360	0.3504	0.3014	0.9086	0.8366	0.7044
	HIGH	0.5028	1.2258	0.4220	1.5642	1.3060	1.1610	2.0606	1.9708	1.7956
	WGHTD AVE	0.3858	0.8013	0.2370	0.9126	0.6956	0.6090	1.3397	1.2600	1.1088
Marion	LOW	0.1910	0.2102	0.0458	0.1666	0.0594	0.0520	0.3944	0.3420	0.2620
	HIGH	0.3192	0.4398	0.1222	0.4396	0.2584	0.2232	0.8076	0.7342	0.6034
	WGHTD AVE	0.2992	0.3751	0.0972	0.3479	0.1767	0.1513	0.6991	0.6272	0.5023
Martin	LOW	0.4408	0.6482	0.1970	0.6914	0.4502	0.3894	1.1910	1.0958	0.9158
	HIGH	0.6628	1.5788	0.5656	2.0628	1.7354	1.5438	2.6976	2.5880	2.3610
	WGHTD AVE	0.5320	1.0151	0.3283	1.2079	0.9274	0.8156	1.7717	1.6695	1.4668
Miami-Dade	LOW	0.4566	0.7952	0.2636	0.9378	0.6956	0.6068	1.4254	1.3358	1.1606
	HIGH	0.8428	2.6444	0.9810	3.6896	3.3254	3.0056	4.3548	4.2468	4.0110
	WGHTD AVE	0.6486	1.7040	0.5951	2.2279	1.9072	1.7001	2.8399	2.7364	2.5180

Monroe	**LOW**	0.6376	1.2732	0.4864	1.7280	1.4362	1.2572	2.3078	2.2188	2.0016
	HIGH	1.0476	3.3148	1.3088	4.8226	4.4274	4.0090	5.5320	5.4294	5.1704
	WGHTD AVE	0.9312	2.6523	1.0402	3.8073	3.4204	3.0677	4.5217	4.4175	4.1548
Nassau	**LOW**	0.0666	0.1384	0.0326	0.0864	0.0434	0.0380	0.2080	0.1784	0.1338
	HIGH	0.0954	0.2256	0.0622	0.1756	0.1146	0.0998	0.3452	0.3074	0.2446
	WGHTD AVE	0.0900	0.2077	0.0550	0.1525	0.0941	0.0821	0.3157	0.2787	0.2181
Okaloosa	**LOW**	0.1536	0.3968	0.1176	0.3292	0.2288	0.1966	0.6114	0.5550	0.4482
	HIGH	0.3030	1.0418	0.3786	1.1984	1.0234	0.8988	1.6454	1.5674	1.3988
	WGHTD AVE	0.2879	1.0022	0.3593	1.1248	0.9541	0.8368	1.5635	1.4865	1.3208
Okeechobee	**LOW**	0.3786	0.4932	0.1304	0.4624	0.2442	0.2080	0.9110	0.8202	0.6608
	HIGH	0.4058	0.5546	0.1530	0.5414	0.3076	0.2624	1.0184	0.9238	0.7544
	WGHTD AVE	0.3979	0.5241	0.1403	0.4968	0.2671	0.2272	0.9676	0.8732	0.7060
Orange	**LOW**	0.2806	0.3346	0.0800	0.2886	0.1238	0.1062	0.6304	0.5578	0.4368
	HIGH	0.3816	0.5366	0.1526	0.5456	0.3284	0.2814	0.9842	0.8982	0.7420
	WGHTD AVE	0.3268	0.3991	0.1016	0.3638	0.1766	0.1506	0.7483	0.6698	0.5330
Osceola	**LOW**	0.3168	0.3740	0.0920	0.3310	0.1488	0.1272	0.7052	0.6278	0.4948
	HIGH	0.3656	0.4736	0.1272	0.4548	0.2452	0.2094	0.8810	0.7960	0.6444
	WGHTD AVE	0.3344	0.4078	0.1029	0.3697	0.1771	0.1511	0.7638	0.6835	0.5432
Palm Beach	**LOW**	0.4534	0.7350	0.2324	0.8212	0.5730	0.4990	1.3284	1.2342	1.0516
	HIGH	0.7318	1.8436	0.6674	2.4444	2.0890	1.8634	3.1270	3.0116	2.7676
	WGHTD AVE	0.5502	1.1291	0.3813	1.3866	1.1014	0.9735	1.9556	1.8534	1.6491
Pasco	**LOW**	0.2740	0.3538	0.0884	0.3176	0.1492	0.1274	0.6634	0.5926	0.4694

	HIGH	0.3424	0.4848	0.1426	0.5074	0.3278	0.2828	0.8880	0.8106	0.6712
	WGHTD AVE	0.2988	0.4241	0.1205	0.4266	0.2566	0.2206	0.7733	0.7040	0.5809
Pinellas	LOW	0.2882	0.4168	0.1182	0.4202	0.2538	0.2182	0.7584	0.6908	0.5710
	HIGH	0.5352	1.4642	0.5200	1.9316	1.6680	1.4868	2.4304	2.3420	2.1664
	WGHTD AVE	0.3496	0.6221	0.1901	0.7100	0.5176	0.4518	1.0937	1.0202	0.8843
Polk	LOW	0.3188	0.3824	0.0946	0.3400	0.1530	0.1304	0.7206	0.6428	0.5082
	HIGH	0.4300	0.6460	0.1928	0.6872	0.4424	0.3784	1.1758	1.0828	0.9090
	WGHTD AVE	0.3541	0.4524	0.1206	0.4301	0.2263	0.1921	0.8442	0.7616	0.6143
Putnam	LOW	0.1122	0.2450	0.0600	0.1578	0.0838	0.0724	0.3698	0.3220	0.2432
	HIGH	0.1384	0.3288	0.0894	0.2438	0.1528	0.1314	0.5026	0.4484	0.3514
	WGHTD AVE	0.1312	0.2930	0.0764	0.2075	0.1222	0.1053	0.4502	0.3980	0.3072
St. Johns	LOW	0.0980	0.2138	0.0534	0.1450	0.0816	0.0712	0.3236	0.2822	0.2166
	HIGH	0.1676	0.4650	0.1464	0.4370	0.3322	0.2894	0.7222	0.6654	0.5588
	WGHTD AVE	0.1483	0.3964	0.1205	0.3532	0.2594	0.2260	0.6126	0.5597	0.4623
St. Lucie	LOW	0.4072	0.5692	0.1678	0.5878	0.3636	0.3132	1.0540	0.9640	0.7958
	HIGH	0.5260	0.9838	0.3314	1.1842	0.9078	0.7978	1.7402	1.6394	1.4394
	WGHTD AVE	0.4868	0.8313	0.2666	0.9544	0.6926	0.6048	1.4865	1.3884	1.1969
Santa Rosa	LOW	0.1564	0.3866	0.1110	0.3060	0.2036	0.1744	0.5956	0.5370	0.4280
	HIGH	0.3148	1.0970	0.4016	1.2784	1.0986	0.9656	1.7340	1.6548	1.4834
	WGHTD AVE	0.2956	1.0107	0.3642	1.1545	0.9832	0.8640	1.5932	1.5160	1.3505
Sarasota	LOW	0.3146	0.4860	0.1444	0.5142	0.3356	0.2882	0.8746	0.8044	0.6770
	HIGH	0.4034	0.6932	0.2182	0.7784	0.5514	0.4766	1.2302	1.1460	0.9852
	WGHTD AVE	0.3591	0.5952	0.1837	0.6552	0.4524	0.3905	1.0602	0.9834	0.8395

Seminole	LOW	0.2954	0.3580	0.0882	0.3142	0.1442	0.1232	0.6674	0.5934	0.4682
	HIGH	0.3318	0.4514	0.1230	0.4372	0.2470	0.2120	0.8272	0.7482	0.6098
	WGHTD AVE	0.3137	0.3856	0.0968	0.3440	0.1629	0.1390	0.7185	0.6413	0.5084
Sumter	LOW	0.2856	0.3406	0.0838	0.3020	0.1390	0.1192	0.6388	0.5682	0.4486
	HIGH	0.3322	0.4266	0.1132	0.4054	0.2154	0.1840	0.7934	0.7150	0.5770
	WGHTD AVE	0.3270	0.4153	0.1097	0.3928	0.2060	0.1760	0.7747	0.6973	0.5614
Suwanee	LOW	0.0660	0.1342	0.0310	0.0818	0.0392	0.0346	0.2018	0.1724	0.1288
	HIGH	0.1114	0.2594	0.0690	0.1894	0.1166	0.1010	0.3952	0.3502	0.2736
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Taylor	LOW	0.0774	0.1694	0.0426	0.1150	0.0648	0.0562	0.2568	0.2242	0.1718
	HIGH	0.1220	0.3122	0.0898	0.2582	0.1798	0.1572	0.4778	0.4314	0.3490
	WGHTD AVE	0.1220	0.3122	0.0898	0.2582	0.1798	0.1572	0.4778	0.4314	0.3490
Union	LOW	0.0784	0.1586	0.0364	0.0960	0.0454	0.0400	0.2382	0.2032	0.1514
	HIGH	0.1058	0.2324	0.0574	0.1512	0.0814	0.0706	0.3510	0.3064	0.2318
	WGHTD AVE	0.0784	0.1586	0.0364	0.0960	0.0454	0.0400	0.2382	0.2032	0.1514
Volusia	LOW	0.2392	0.2788	0.0666	0.2400	0.1040	0.0890	0.5232	0.4620	0.3618
	HIGH	0.3948	0.7306	0.2378	0.8648	0.6560	0.5748	1.2758	1.1984	1.0524
	WGHTD AVE	0.3420	0.5444	0.1594	0.5830	0.3902	0.3381	0.9710	0.8954	0.7576
Wakulla	LOW	0.0822	0.1784	0.0442	0.1188	0.0654	0.0568	0.2700	0.2350	0.1794
	HIGH	0.1556	0.4262	0.1332	0.3946	0.2964	0.2576	0.6616	0.6086	0.5086
	WGHTD AVE	0.1556	0.4262	0.1332	0.3946	0.2964	0.2576	0.6616	0.6086	0.5086
Walton	LOW	0.1376	0.3274	0.0906	0.2454	0.1548	0.1328	0.5024	0.4492	0.3528

	HIGH	0.3074	1.0344	0.3744	1.1850	1.0076	0.8842	1.6368	1.5572	1.3882
	WGHTD AVE	0.2785	0.8514	0.3129	0.9640	0.8040	0.7044	1.3802	1.3049	1.1487
Washington	LOW	0.1216	0.2754	0.0718	0.1928	0.1132	0.0978	0.4192	0.3694	0.2848
	HIGH	0.1992	0.5706	0.1826	0.5404	0.4150	0.3612	0.8860	0.8196	0.6886
	WGHTD AVE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

STATEWIDE	LOW	0.0596	0.1184	0.0268	0.0712	0.0330	0.0292	0.1778	0.1508	0.1122
	HIGH	1.0476	3.3148	1.3088	4.8226	4.4274	4.0090	5.5320	5.4294	5.1704
	WGHTD AVE	0.4741	1.0191	0.3197	1.2002	0.9441	0.8321	1.7091	1.6169	1.4348

Form A-7: Percentage Change In Output Ranges (V1.5 to V2.6)

LOSS COSTS PER $1,000

Personal Residential -- Owners -- FRAME

COUNTY	LOSS COSTS	$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE APPURTENANT STRUCTURE	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-24.13045%	-79.65351%	33.91731%	294.67983%	-48.52040%	-64.44962%	-70.15569%	-64.44962%	-69.15892%	-69.85655%
Baker	WGHTD AVE	-16.64298%	-78.76737%	42.40156%	594.07329%	-44.41506%	-63.14755%	-69.48156%	-63.14755%	-68.41136%	-69.17086%
Bay	WGHTD AVE	18.38776%	-58.13206%	116.11296%	222.78671%	-9.04814%	-23.29819%	-25.18627%	-23.29819%	-24.90414%	-16.84840%
Bradford	WGHTD AVE	-24.01869%	-80.41128%	31.33054%	306.55714%	-49.50808%	-66.53755%	-72.86508%	-66.53755%	-71.77713%	-73.58356%
Brevard	WGHTD AVE	-21.39876%	-85.14114%	0.37058%	-65.57119%	-44.67787%	-49.49241%	-58.14893%	-49.49241%	-54.40708%	-71.03486%
Broward	WGHTD AVE	26.59870%	-57.76089%	6.76805%	18.30467%	2.27117%	1.03489%	-4.24288%	1.03489%	-0.45808%	-16.31380%
Calhoun	WGHTD AVE	-6.56639%	-74.91463%	68.45021%	383.66443%	-36.37191%	-55.65749%	-62.87768%	-55.65749%	-61.55637%	-62.82526%
Charlotte	WGHTD AVE	34.56586%	-70.94890%	40.00504%	52.12646%	2.53309%	-0.75370%	-5.49615%	-0.75370%	-1.37407%	-16.64409%
Citrus	WGHTD AVE	33.60377%	-78.06014%	27.94532%	62.16785%	-1.47469%	-6.58705%	-13.89419%	-6.58705%	-8.32383%	-31.21662%
Clay	WGHTD AVE	-25.75180%	-80.15332%	29.53990%	154.08827%	-50.02443%	-65.78076%	-71.57139%	-65.78076%	-70.53583%	-72.17346%
Collier	WGHTD AVE	32.39057%	-71.23559%	44.80989%	28.36177%	0.57036%	-3.20796%	-9.86006%	-3.20796%	-5.40074%	-23.89412%
Columbia	WGHTD AVE	-24.07241%	-80.28504%	31.17921%	453.49345%	-49.26939%	-66.04639%	-71.77638%	-66.04639%	-70.87186%	-71.01262%
De Soto	WGHTD AVE	25.38704%	-78.21474%	28.03770%	23.92519%	-7.05087%	-11.57267%	-18.98287%	-11.57267%	-13.95994%	-35.59545%
Dixie	WGHTD AVE	-27.02712%	-77.23503%	26.56021%	214.63756%	-47.50030%	-59.77556%	-62.30614%	-59.77556%	-62.07956%	-56.79945%
Duval	WGHTD AVE	-37.15458%	-82.51634%	15.85976%	-3.31789%	-57.99114%	-71.09401%	-76.46252%	-71.09401%	-75.49884%	-78.26804%
Escambia	WGHTD AVE	76.39902%	-29.17025%	190.47159%	763.58820%	47.27793%	36.76199%	50.73463%	36.76199%	47.08678%	93.77606%
Flagler	WGHTD AVE	21.22676%	-76.90729%	37.29791%	-19.27944%	-11.42146%	-17.00083%	-26.72527%	-17.00083%	-21.33228%	-44.67344%
Franklin	WGHTD AVE	31.32492%	-49.79154%	90.97130%	244.36710%	4.96663%	-4.87996%	0.80599%	-4.87996%	-0.74090%	20.03980%
Gadsen	WGHTD AVE	-22.54553%	-80.22822%	32.54615%	371.45959%	-48.78203%	-66.54166%	-72.92283%	-66.54166%	-71.89904%	-73.18021%
Gilchrist	WGHTD AVE	-20.69729%	-77.34439%	38.90890%	383.77284%	-44.41406%	-59.25969%	-63.57645%	-59.25969%	-62.88496%	-60.11674%
Glades	WGHTD AVE	8.32928%	-81.58677%	19.80847%	-36.88319%	-22.03100%	-27.59082%	-37.80243%	-27.59082%	-32.78904%	-55.81988%
Gulf	WGHTD AVE	22.54140%	-60.50404%	103.65545%	618.48220%	-7.72133%	-23.32371%	-22.39233%	-23.32371%	-23.08063%	-3.38638%
Hamilton	WGHTD AVE	-40.73442%	-85.03505%	2.33821%	320.09327%	-61.12423%	-74.91462%	-79.62190%	-74.91462%	-78.94721%	-79.21469%
Hardee	WGHTD AVE	27.98840%	-79.13779%	30.60805%	14.38953%	-5.99127%	-11.00499%	-19.65960%	-11.00499%	-14.14733%	-38.74589%
Hendry	WGHTD AVE	-16.47806%	-84.77200%	5.55785%	-61.00947%	-40.32658%	-45.16508%	-54.27200%	-45.16508%	-50.35262%	-68.40862%
Hernando	WGHTD AVE	39.28685%	-76.78566%	33.50864%	104.41733%	3.52974%	-1.25898%	-7.39045%	-1.25898%	-1.97618%	-23.12772%
Highlands	WGHTD AVE	26.77685%	-80.45237%	29.42111%	-3.10197%	-8.08644%	-13.79070%	-23.73215%	-13.79070%	-17.84573%	-44.60878%
Hillsborough	WGHTD AVE	35.57332%	-74.58327%	36.64074%	74.73767%	2.30605%	-1.37028%	-6.35771%	-1.37028%	-1.64144%	-19.74933%

Holmes	WGHTD AVE	4.12359%	-70.64674%	89.97080%	516.52352%	-26.97605%	-46.44879%	-52.56113%	-46.44879%	-51.48960%	-49.15078%
Indian River	WGHTD AVE	-24.58830%	-82.92474%	7.26896%	-66.67345%	-46.02946%	-50.53075%	-58.81511%	-50.53075%	-55.49018%	-70.24540%
Jackson	WGHTD AVE	-22.63789%	-79.72903%	40.16717%	157.10254%	-48.70575%	-65.84684%	-72.85576%	-65.84684%	-71.65461%	-74.54082%
Jefferson	WGHTD AVE	-44.28258%	-85.64589%	-3.26630%	187.97535%	-63.09785%	-75.64578%	-79.78777%	-75.64578%	-79.18494%	-79.17257%
Lafayette	WGHTD AVE	-24.12415%	-79.45998%	32.37186%	674.94167%	-48.08765%	-63.68198%	-68.18477%	-63.68198%	-67.56448%	-64.61140%
Lake	WGHTD AVE	21.05215%	-81.84811%	23.63465%	-11.85039%	-12.79581%	-18.66871%	-28.68062%	-18.66871%	-22.79749%	-49.40575%
Lee	WGHTD AVE	10.07914%	-75.15993%	37.53897%	-12.08751%	-15.89240%	-20.08203%	-27.70437%	-20.08203%	-23.56969%	-41.58216%
Leon	WGHTD AVE	-31.65638%	-82.52829%	18.01363%	330.43097%	-54.62822%	-69.73808%	-74.85789%	-69.73808%	-74.05108%	-74.26228%
Levy	WGHTD AVE	-25.97053%	-78.16611%	28.18086%	163.38699%	-47.78719%	-60.59771%	-64.20494%	-60.59771%	-63.65459%	-60.93172%
Liberty	WGHTD AVE	-16.42453%	-78.28795%	46.53513%	511.78124%	-44.16428%	-62.56629%	-69.26105%	-62.56629%	-68.18769%	-68.97345%
Madison	WGHTD AVE	-38.93793%	-84.22108%	6.62433%	223.40959%	-59.46218%	-73.18278%	-78.00651%	-73.18278%	-77.24864%	-77.94382%
Manatee	WGHTD AVE	19.48544%	-72.63489%	31.53353%	28.74847%	-8.13889%	-11.32906%	-15.86219%	-11.32906%	-12.21124%	-25.96931%
Marion	WGHTD AVE	26.81860%	-81.60169%	21.99680%	11.99363%	-8.66503%	-14.72798%	-24.46432%	-14.72798%	-18.26699%	-45.73435%
Martin	WGHTD AVE	19.40887%	-68.33459%	13.47227%	-22.72526%	-8.83173%	-12.38772%	-22.75486%	-12.38772%	-17.50603%	-40.53492%
Miami-Dade	WGHTD AVE	37.52272%	-50.66542%	15.79432%	38.07129%	12.96055%	12.01500%	7.09438%	12.01500%	10.81627%	-4.76614%
Monroe	WGHTD AVE	86.25284%	-26.37975%	42.29652%	125.80329%	57.52331%	58.47422%	56.60635%	58.47422%	59.85064%	47.46365%
Nassau	WGHTD AVE	-56.86659%	-88.31870%	-17.79295%	-47.36410%	-71.90067%	-81.31554%	-85.37462%	-81.31554%	-84.69501%	-87.03282%
Okaloosa	WGHTD AVE	46.80759%	-41.80892%	159.33966%	334.69842%	19.81129%	8.32902%	12.54724%	8.32902%	11.36936%	31.85483%
Okeechobee	WGHTD AVE	-24.18627%	-87.76937%	-4.46982%	-71.83628%	-47.79182%	-53.09413%	-62.52016%	-53.09413%	-58.60496%	-76.31908%
Orange	WGHTD AVE	12.25193%	-83.26627%	18.32812%	-34.35137%	-19.82015%	-25.61233%	-36.09122%	-25.61233%	-30.39405%	-56.55896%
Osceola	WGHTD AVE	20.98020%	-82.15503%	23.85378%	-13.72476%	-12.64107%	-18.20622%	-28.08314%	-18.20622%	-22.12034%	-49.44646%
Palm Beach	WGHTD AVE	33.01189%	-60.59314%	13.85435%	22.31706%	5.85367%	4.33693%	-2.16234%	4.33693%	2.53404%	-16.98173%
Pasco	WGHTD AVE	34.05574%	-76.76476%	32.09363%	70.51858%	-0.27993%	-4.71852%	-10.93504%	-4.71852%	-5.77572%	-26.26028%
Pinellas	WGHTD AVE	33.25060%	-70.46165%	38.56946%	75.63838%	2.41382%	-0.69511%	-4.17392%	-0.69511%	-0.25977%	-13.24280%
Polk	WGHTD AVE	28.59313%	-79.62195%	30.96857%	22.10752%	-5.59309%	-10.59540%	-18.88563%	-10.59540%	-13.30631%	-37.95532%
Putnam	WGHTD AVE	-22.05818%	-78.30432%	41.61171%	190.29787%	-46.02268%	-61.09491%	-66.64420%	-61.09491%	-65.54494%	-66.62675%
St. Johns	WGHTD AVE	-34.54557%	-79.47290%	26.46087%	-14.16215%	-54.19470%	-65.52448%	-70.18865%	-65.52448%	-69.28498%	-71.48588%
St. Lucie	WGHTD AVE	29.39758%	-68.66943%	15.28223%	-13.33018%	-1.77832%	-5.40520%	-16.55215%	-5.40520%	-10.52640%	-36.97667%
Santa Rosa	WGHTD AVE	33.43312%	-47.66354%	147.03924%	222.08118%	7.39309%	-4.57209%	-3.55992%	-4.57209%	-3.87297%	8.08912%
Sarasota	WGHTD AVE	26.01509%	-73.24856%	36.60904%	50.08129%	-3.70224%	-6.86217%	-11.25873%	-6.86217%	-7.26294%	-22.10778%
Seminole	WGHTD AVE	13.71717%	-83.42899%	19.10214%	-35.46381%	-19.62520%	-25.89756%	-36.95395%	-25.89756%	-30.95215%	-58.18447%
Sumter	WGHTD AVE	2.81226%	-84.86683%	5.07754%	-36.24631%	-27.13547%	-32.91319%	-42.71017%	-32.91319%	-37.56713%	-60.94403%
Suwanee	WGHTD AVE	-34.92205%	-83.25636%	12.15391%	327.55730%	-56.89851%	-71.56662%	-76.43876%	-71.56662%	-75.73308%	-75.53158%
Taylor	WGHTD AVE	-24.75257%	-78.06935%	31.53632%	375.19891%	-46.57403%	-59.90663%	-62.21371%	-59.90663%	-62.01774%	-55.62368%
Union	WGHTD AVE	-20.63721%	-79.17578%	39.87728%	617.23262%	-46.46268%	-63.63530%	-69.61373%	-63.63530%	-68.60109%	-68.82345%

Volusia	WGHTD AVE	5.84920%	-81.99651%	20.28436%	-40.59566%	-23.63296%	-29.14212%	-39.12823%	-29.14212%	-33.96358%	-57.23978%
Wakulla	WGHTD AVE	-29.30409%	-80.52763%	21.52671%	280.53325%	-50.98038%	-64.30568%	-67.58308%	-64.30568%	-67.14364%	-63.59935%
Walton	WGHTD AVE	22.22771%	-56.26548%	116.06161%	298.12702%	-5.40059%	-19.30168%	-19.11794%	-19.30168%	-19.48707%	-5.64360%
Washington	WGHTD AVE	18.26023%	-64.22740%	115.94284%	678.01016%	-13.71853%	-32.68935%	-36.54917%	-32.68935%	-35.94935%	-27.08547%
STATEWIDE	WGHTD AVE	13.57302%	-72.52466%	35.16039%	16.04022%	-14.80224%	-20.80908%	-26.53528%	-20.80908%	-23.04259%	-36.58993%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL -Owners -- MASONRY

COUNTY	LOSS COSTS	0% DEDUCTIBLE STRUCTURE	0% DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE APPURTENANT STRUCTURE	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-23.26316%	-80.23072%	32.50742%	346.20845%	-49.01830%	-65.72397%	-71.61118%	-65.72397%	-70.76417%	-70.67007%
Baker	WGHTD AVE	-14.40836%	-78.92064%	42.49896%	779.53966%	-43.90602%	-63.58663%	-70.02651%	-63.58663%	-69.15104%	-68.58920%
Bay	WGHTD AVE	19.49377%	-60.98427%	116.97641%	285.37415%	-10.86847%	-26.94344%	-29.57997%	-26.94344%	-29.32012%	-20.30349%
Bradford	WGHTD AVE	-21.55931%	-80.47225%	32.04258%	410.74500%	-48.75542%	-66.71773%	-73.13692%	-66.71773%	-72.23073%	-72.77003%
Brevard	WGHTD AVE	-29.76553%	-87.46457%	-4.42146%	-70.90474%	-51.68709%	-56.97361%	-64.91920%	-56.97361%	-61.59544%	-76.38659%
Broward	WGHTD AVE	14.29494%	-71.19134%	7.61955%	-0.54676%	-11.99225%	-14.95069%	-20.87114%	-14.95069%	-16.71683%	-34.19488%
Calhoun	WGHTD AVE	-4.32079%	-75.24672%	68.48284%	487.94377%	-36.06905%	-56.44901%	-63.85502%	-56.44901%	-62.74637%	-62.69162%
Charlotte	WGHTD AVE	22.49016%	-76.60955%	38.47507%	50.86313%	-8.92938%	-13.94557%	-19.36002%	-13.94557%	-15.16040%	-31.30615%
Citrus	WGHTD AVE	26.27991%	-79.73427%	28.91884%	84.06570%	-8.14420%	-14.68814%	-21.32412%	-14.68814%	-16.22314%	-36.56525%
Clay	WGHTD AVE	-23.31495%	-80.18170%	30.69526%	202.17564%	-49.19816%	-65.83429%	-71.73845%	-65.83429%	-70.86171%	-71.43526%
Collier	WGHTD AVE	23.50312%	-75.22603%	46.88545%	31.20606%	-7.53665%	-12.63528%	-19.17064%	-12.63528%	-14.87137%	-32.53699%
Columbia	WGHTD AVE	-21.80963%	-80.43530%	32.35004%	623.54426%	-48.67367%	-66.38351%	-72.22962%	-66.38351%	-71.49477%	-70.40518%
De Soto	WGHTD AVE	18.94250%	-79.91898%	30.11714%	37.32194%	-12.87097%	-18.61754%	-25.36393%	-18.61754%	-20.71074%	-40.21641%
Dixie	WGHTD AVE	-24.55910%	-78.74191%	28.21639%	393.10355%	-47.81532%	-61.98694%	-65.43900%	-61.98694%	-65.17077%	-59.74747%
Duval	WGHTD AVE	-33.43379%	-82.41844%	17.52081%	16.65169%	-56.36655%	-70.72000%	-76.35459%	-70.72000%	-75.47786%	-77.65760%
Escambia	WGHTD AVE	74.99654%	-34.27647%	191.80534%	846.84692%	42.77117%	30.79285%	43.56795%	30.79285%	40.14995%	86.95226%
Flagler	WGHTD AVE	16.54858%	-79.58746%	36.32671%	-17.64936%	-16.55368%	-23.50026%	-32.82790%	-23.50026%	-27.58931%	-50.22207%
Franklin	WGHTD AVE	12.80942%	-57.62668%	93.53300%	114.71267%	-12.05010%	-22.26776%	-20.80186%	-22.26776%	-21.35870%	-10.40731%
Gadsen	WGHTD AVE	-20.95551%	-80.59791%	31.98875%	473.97626%	-48.71132%	-67.25143%	-73.67672%	-67.25143%	-72.85407%	-72.93311%
Gilchrist	WGHTD AVE	-19.06169%	-77.85138%	39.22194%	487.74375%	-44.43543%	-60.22185%	-64.84057%	-60.22185%	-64.26208%	-60.69760%
Glades	WGHTD AVE	3.55527%	-83.00914%	19.65968%	-33.94832%	-26.40808%	-32.95601%	-42.48004%	-32.95601%	-37.76270%	-59.26923%
Gulf	WGHTD AVE	17.64800%	-64.21134%	104.83581%	552.01555%	-14.15043%	-31.23563%	-32.43772%	-31.23563%	-32.77347%	-16.87210%
Hamilton	WGHTD AVE	-38.30830%	-84.95522%	3.79131%	480.27744%	-60.16011%	-74.73798%	-79.52195%	-74.73798%	-78.98587%	-78.18553%
Hardee	WGHTD AVE	20.72775%	-80.90403%	29.99854%	28.80511%	-12.46318%	-18.73227%	-26.56878%	-18.73227%	-21.48147%	-43.69557%
Hendry	WGHTD AVE	-28.64507%	-87.53216%	-1.43242%	-68.96827%	-50.16286%	-55.37262%	-63.59235%	-55.37262%	-60.21373%	-75.71343%
Hernando	WGHTD AVE	33.78719%	-77.84735%	38.36706%	151.73445%	-1.55971%	-7.72665%	-12.90747%	-7.72665%	-8.02608%	-25.83448%
Highlands	WGHTD AVE	19.46714%	-81.87007%	28.58007%	7.76030%	-14.41431%	-21.32157%	-30.27147%	-21.32157%	-24.89397%	-48.91663%
Hillsborough	WGHTD AVE	26.70195%	-77.77708%	37.20460%	96.97313%	-5.95338%	-11.15804%	-15.89449%	-11.15804%	-11.43873%	-28.04360%

Holmes	WGHTD AVE	4.90848%	-71.67451%	86.66867%	634.95607%	-28.07719%	-48.72447%	-55.30328%	-48.72447%	-54.37093%	-51.30415%
Indian River	WGHTD AVE	-31.48043%	-85.75569%	7.10633%	-71.36488%	-52.00577%	-56.99144%	-64.82372%	-56.99144%	-61.75978%	-75.39196%
Jackson	WGHTD AVE	-22.06204%	-80.53952%	36.20893%	163.08052%	-49.63114%	-67.43737%	-74.59102%	-67.43737%	-73.55890%	-75.69640%
Jefferson	WGHTD AVE	-43.28860%	-85.99423%	-4.51855%	239.05893%	-63.20800%	-76.34319%	-80.59378%	-76.34319%	-80.09367%	-79.40267%
Lafayette	WGHTD AVE	-22.43257%	-79.82667%	32.58791%	864.78571%	-47.97638%	-64.45690%	-69.22176%	-64.45690%	-68.72572%	-64.96634%
Lake	WGHTD AVE	15.37704%	-82.31696%	25.69097%	-1.56162%	-17.49851%	-24.34930%	-33.13826%	-24.34930%	-27.88533%	-51.20241%
Lee	WGHTD AVE	20.63618%	-77.36426%	40.09692%	29.50008%	-10.59827%	-15.95698%	-22.64909%	-15.95698%	-18.25165%	-36.49983%
Leon	WGHTD AVE	-29.14182%	-82.54451%	19.31188%	461.65443%	-53.77078%	-69.78588%	-75.00706%	-69.78588%	-74.34452%	-73.39971%
Levy	WGHTD AVE	-28.24352%	-79.82727%	27.12484%	169.40509%	-50.66356%	-64.29416%	-68.71794%	-64.29416%	-68.12324%	-66.32779%
Liberty	WGHTD AVE	-12.90171%	-78.21759%	48.96461%	681.54922%	-42.90089%	-62.57265%	-69.50170%	-62.57265%	-68.59920%	-68.08280%
Madison	WGHTD AVE	-37.49034%	-84.35423%	5.61193%	293.85899%	-59.21092%	-73.62110%	-78.50572%	-73.62110%	-77.88894%	-77.65664%
Manatee	WGHTD AVE	14.63304%	-76.75555%	33.05250%	42.08757%	-13.94076%	-18.42206%	-22.80410%	-18.42206%	-19.16773%	-32.56360%
Marion	WGHTD AVE	24.42786%	-81.86396%	25.06539%	56.75324%	-10.96341%	-18.24291%	-26.38604%	-18.24291%	-20.69150%	-44.89972%
Martin	WGHTD AVE	11.93834%	-76.82915%	13.07944%	-34.49414%	-18.15910%	-23.40346%	-33.98144%	-23.40346%	-28.50820%	-52.57615%
Miami-Dade	WGHTD AVE	25.83811%	-66.14645%	16.29917%	21.60266%	-1.41705%	-3.99672%	-9.35673%	-3.99672%	-5.19192%	-22.43983%
Monroe	WGHTD AVE	85.84314%	-34.07482%	45.31191%	91.23646%	52.61544%	53.04438%	48.85053%	53.04438%	52.83417%	36.45666%
Nassau	WGHTD AVE	-51.59428%	-87.59116%	-13.13206%	-27.82529%	-69.01762%	-80.05806%	-84.55153%	-80.05806%	-83.90178%	-85.90339%
Okaloosa	WGHTD AVE	45.32138%	-46.84846%	158.44764%	365.83562%	15.05806%	1.72503%	4.48641%	1.72503%	3.54570%	23.44159%
Okeechobee	WGHTD AVE	-26.41832%	-88.58427%	-7.74204%	-71.64129%	-50.19797%	-56.19251%	-65.12072%	-56.19251%	-61.41304%	-78.21749%
Orange	WGHTD AVE	7.99578%	-84.06183%	18.06969%	-26.47442%	-23.66489%	-30.51989%	-39.96084%	-30.51989%	-34.66093%	-58.72121%
Osceola	WGHTD AVE	15.35988%	-83.08212%	23.07888%	-1.20464%	-17.76806%	-24.36959%	-32.97015%	-24.36959%	-27.58665%	-51.76985%
Palm Beach	WGHTD AVE	17.57842%	-72.83186%	8.22913%	-0.81389%	-10.87008%	-14.22194%	-20.97508%	-14.22194%	-16.19906%	-36.13513%
Pasco	WGHTD AVE	24.77767%	-79.07327%	31.78230%	97.23089%	-8.51118%	-14.36471%	-19.91418%	-14.36471%	-15.22716%	-32.99907%
Pinellas	WGHTD AVE	22.58877%	-75.95704%	35.40898%	89.37957%	-8.08597%	-12.83535%	-16.66383%	-12.83535%	-12.80014%	-25.73203%
Polk	WGHTD AVE	21.07850%	-81.23772%	30.81679%	37.12667%	-12.28229%	-18.56294%	-26.02156%	-18.56294%	-20.91284%	-42.93148%
Putnam	WGHTD AVE	-20.64331%	-78.71723%	41.10906%	229.77816%	-46.06874%	-61.96866%	-67.69865%	-61.96866%	-66.74530%	-66.94819%
St. Johns	WGHTD AVE	-33.83100%	-80.16253%	25.30913%	-9.05357%	-54.44871%	-66.18851%	-70.92658%	-66.18851%	-70.11419%	-71.85824%
St. Lucie	WGHTD AVE	20.95636%	-76.75754%	13.97209%	-24.16134%	-11.58077%	-17.01253%	-28.00811%	-17.01253%	-21.81180%	-49.13041%
Santa Rosa	WGHTD AVE	27.42153%	-52.54344%	138.92716%	219.05677%	0.24000%	-12.53230%	-13.36445%	-12.53230%	-13.32827%	-4.57717%
Sarasota	WGHTD AVE	19.52430%	-76.58229%	37.73198%	64.17583%	-10.31150%	-14.79957%	-18.96160%	-14.79957%	-15.15416%	-28.79154%
Seminole	WGHTD AVE	9.07170%	-84.15462%	19.25541%	-29.27207%	-23.70522%	-31.02000%	-40.94010%	-31.02000%	-35.43178%	-60.23619%
Sumter	WGHTD AVE	4.97223%	-84.30862%	11.79563%	-15.84933%	-25.76138%	-32.56549%	-41.41501%	-32.56549%	-36.47156%	-58.51425%
Suwanee	WGHTD AVE	-33.69975%	-83.63685%	11.38029%	419.38361%	-56.96127%	-72.33082%	-77.30192%	-72.33082%	-76.74654%	-75.69117%
Taylor	WGHTD AVE	-24.66869%	-79.20194%	29.85614%	455.92911%	-47.79956%	-61.96224%	-64.75867%	-61.96224%	-64.57983%	-58.20668%
Union	WGHTD AVE	-18.51199%	-79.40014%	40.41325%	815.58798%	-46.03089%	-64.13069%	-70.24466%	-64.13069%	-69.42104%	-68.39428%

Volusia	WGHTD AVE	0.97453%	-83.61164%	19.40161%	-36.77038%	-28.23276%	-34.77312%	-44.06036%	-34.77312%	-39.21314%	-60.98484%
Wakulla	WGHTD AVE	-28.03021%	-80.88303%	24.90340%	362.36007%	-51.03817%	-65.18529%	-68.77078%	-65.18529%	-68.40110%	-64.30824%
Walton	WGHTD AVE	21.57902%	-60.31406%	116.23496%	382.81700%	-9.11904%	-25.11236%	-26.23900%	-25.11236%	-26.48073%	-12.82341%
Washington	WGHTD AVE	19.46697%	-65.49907%	115.53510%	842.37964%	-14.78318%	-35.13396%	-39.60351%	-35.13396%	-39.10246%	-29.41794%
STATEWIDE	WGHTD AVE	15.17080%	-75.61893%	20.45554%	3.59236%	-14.11625%	-18.80787%	-25.26055%	-18.80787%	-20.97202%	-38.72074%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - MOBILE HOMES

COUNTY	LOSS COSTS	$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE APPURTENANT STRUCTURE	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	86.07961%	-0.88910%	30.11393%	33.12272%	45.37371%	35.41319%	13.21732%	45.37371%	35.41319%	13.21732%
Baker	WGHTD AVE	131.26547%	11.64037%	34.13571%	52.12287%	72.81895%	58.82324%	27.89165%	72.81895%	58.82324%	27.89165%
Bay	WGHTD AVE	157.83806%	82.37294%	105.76025%	140.36207%	124.87376%	116.32216%	97.54845%	124.87376%	116.32216%	97.54845%
Bradford	WGHTD AVE	98.02155%	-3.75625%	31.60889%	27.98486%	49.08393%	37.27426%	10.97971%	49.08393%	37.27426%	10.97971%
Brevard	WGHTD AVE	30.72025%	-21.25107%	7.08044%	4.03730%	11.23751%	6.19004%	-6.49352%	11.23751%	6.19004%	-6.49352%
Broward	WGHTD AVE	32.01753%	-3.11776%	8.64211%	29.69348%	20.16168%	16.86874%	8.52709%	20.16168%	16.86874%	8.52709%
Calhoun	WGHTD AVE	148.07963%	29.70185%	65.68094%	76.20382%	93.22779%	80.18383%	50.96853%	93.22779%	80.18383%	50.96853%
Charlotte	WGHTD AVE	146.38151%	67.15922%	39.90358%	128.24229%	118.83659%	111.45737%	92.47525%	118.83659%	111.45737%	92.47525%
Citrus	WGHTD AVE	145.38809%	33.39870%	31.85082%	85.00328%	103.87608%	92.86992%	64.89349%	103.87608%	92.86992%	64.89349%
Clay	WGHTD AVE	86.70698%	-3.89612%	31.83344%	26.72806%	43.66378%	33.19308%	9.94090%	43.66378%	33.19308%	9.94090%
Collier	WGHTD AVE	130.83435%	70.39319%	48.29882%	128.12774%	110.77127%	105.13735%	90.63522%	110.77127%	105.13735%	90.63522%
Columbia	WGHTD AVE	89.28915%	-3.69149%	23.86575%	29.03916%	44.25625%	33.31737%	9.13134%	44.25625%	33.31737%	9.13134%
De Soto	WGHTD AVE	113.16712%	29.03801%	27.88762%	76.35442%	82.75483%	74.75749%	54.36451%	82.75483%	74.75749%	54.36451%
Dixie	WGHTD AVE	69.01012%	3.88736%	22.22387%	41.37049%	38.63342%	31.15718%	14.73914%	38.63342%	31.15718%	14.73914%
Duval	WGHTD AVE	9.15053%	-42.99792%	9.03576%	-30.85831%	-16.31053%	-22.63513%	-36.39633%	-16.31053%	-22.63513%	-36.39633%
Escambia	WGHTD AVE	387.05006%	313.27161%	194.30576%	476.36202%	356.27755%	347.50006%	329.76736%	356.27755%	347.50006%	329.76736%
Flagler	WGHTD AVE	131.63433%	38.62088%	56.03934%	84.40346%	96.62775%	87.92648%	66.07515%	96.62775%	87.92648%	66.07515%
Franklin	WGHTD AVE	154.13019%	110.70775%	110.87003%	175.40255%	134.57050%	129.06587%	117.89893%	134.57050%	129.06587%	117.89893%
Gadsen	WGHTD AVE	101.48592%	-4.13158%	32.99097%	27.93877%	50.07464%	37.48401%	9.59630%	50.07464%	37.48401%	9.59630%
Gilchrist	WGHTD AVE	115.53620%	28.85755%	39.50190%	78.22747%	75.75936%	66.13584%	44.81762%	75.75936%	66.13584%	44.81762%
Glades	WGHTD AVE	55.51490%	-8.90955%	19.66092%	21.00477%	31.97170%	25.79072%	10.08488%	31.97170%	25.79072%	10.08488%
Gulf	WGHTD AVE	129.76130%	52.84886%	75.68698%	103.83552%	94.63231%	86.12168%	67.82345%	94.63231%	86.12168%	67.82345%
Hamilton	WGHTD AVE	50.32902%	-29.94087%	-0.24995%	-6.89059%	10.14486%	0.40697%	-20.85111%	10.14486%	0.40697%	-20.85111%
Hardee	WGHTD AVE	113.96688%	24.49394%	31.41463%	70.70185%	81.69734%	73.30266%	51.82554%	81.69734%	73.30266%	51.82554%
Hendry	WGHTD AVE	8.68529%	-32.42283%	-4.87289%	-9.86231%	-5.91877%	-9.80975%	-19.77109%	-5.91877%	-9.80975%	-19.77109%
Hernando	WGHTD AVE	178.43485%	57.84109%	35.19223%	125.12263%	134.00215%	122.22010%	92.34193%	134.00215%	122.22010%	92.34193%
Highlands	WGHTD AVE	102.91840%	7.52294%	27.86633%	46.20457%	67.84128%	58.72139%	35.45700%	67.84128%	58.72139%	35.45700%
Hillsborough	WGHTD AVE	142.83391%	56.86110%	34.47522%	115.00021%	111.78515%	103.46728%	82.40097%	111.78515%	103.46728%	82.40097%

Holmes	WGHTD AVE	195.77337%	80.07565%	90.57960%	151.03091%	143.79302%	131.22779%	103.35751%	143.79302%	131.22779%	103.35751%
Indian River	WGHTD AVE	33.92952%	-15.89850%	17.47835%	9.20661%	15.45818%	10.64334%	-1.51214%	15.45818%	10.64334%	-1.51214%
Jackson	WGHTD AVE	64.62850%	-18.60642%	40.04959%	7.06712%	25.75946%	16.45150%	-4.24592%	25.75946%	16.45150%	-4.24592%
Jefferson	WGHTD AVE	43.85638%	-28.23011%	-2.52815%	-5.96163%	8.09064%	-0.45119%	-19.03855%	8.09064%	-0.45119%	-19.03855%
Lafayette	WGHTD AVE	141.02186%	33.37494%	32.96772%	95.71580%	90.24011%	78.39460%	52.19730%	90.24011%	78.39460%	52.19730%
Lake	WGHTD AVE	98.87748%	1.22110%	25.62694%	36.49326%	62.22780%	52.70977%	28.58375%	62.22780%	52.70977%	28.58375%
Lee	WGHTD AVE	139.75361%	64.69742%	43.66356%	123.13637%	114.29473%	107.31569%	89.30264%	114.29473%	107.31569%	89.30264%
Leon	WGHTD AVE	110.83613%	6.14725%	30.14346%	44.11837%	60.68199%	49.04708%	23.22200%	60.68199%	49.04708%	23.22200%
Levy	WGHTD AVE	69.55693%	4.55371%	31.40475%	39.25426%	40.04830%	32.73700%	16.51417%	40.04830%	32.73700%	16.51417%
Liberty	WGHTD AVE	121.45651%	10.71577%	45.10121%	53.06128%	68.87441%	56.35446%	28.53567%	68.87441%	56.35446%	28.53567%
Madison	WGHTD AVE	53.35752%	-25.04661%	2.71385%	0.30690%	14.99283%	5.68133%	-14.77623%	14.99283%	5.68133%	-14.77623%
Manatee	WGHTD AVE	144.98687%	73.32254%	34.66287%	136.06452%	120.12031%	113.36750%	96.19760%	120.12031%	113.36750%	96.19760%
Marion	WGHTD AVE	108.17066%	-3.39581%	18.73367%	31.12125%	65.87159%	54.48097%	25.64771%	65.87159%	54.48097%	25.64771%
Martin	WGHTD AVE	27.08449%	-19.60453%	12.63306%	10.12437%	10.91673%	6.93131%	-3.21750%	10.91673%	6.93131%	-3.21750%
Miami-Dade	WGHTD AVE	38.74549%	5.27211%	16.51326%	40.98016%	27.80230%	24.77339%	17.07001%	27.80230%	24.77339%	17.07001%
Monroe	WGHTD AVE	65.72301%	37.95983%	42.51365%	88.38450%	57.99816%	55.56852%	49.52168%	57.99816%	55.56852%	49.52168%
Nassau	WGHTD AVE	5.46498%	-48.16797%	-2.71648%	-37.58067%	-21.38339%	-28.10392%	-42.64329%	-21.38339%	-28.10392%	-42.64329%
Okaloosa	WGHTD AVE	328.71363%	251.85232%	181.10424%	382.79621%	297.16442%	287.93491%	268.74679%	297.16442%	287.93491%	268.74679%
Okeechobee	WGHTD AVE	-7.24040%	-51.07935%	-9.66303%	-36.06457%	-23.74192%	-27.92647%	-38.45118%	-23.74192%	-27.92647%	-38.45118%
Orange	WGHTD AVE	71.94989%	-14.03730%	16.18487%	14.98056%	39.38960%	30.97642%	9.66223%	39.38960%	30.97642%	9.66223%
Osceola	WGHTD AVE	88.53793%	-4.86224%	19.55520%	28.57678%	53.70446%	44.69019%	21.68999%	53.70446%	44.69019%	21.68999%
Palm Beach	WGHTD AVE	30.32275%	-11.89566%	4.86838%	18.80958%	15.48509%	11.52691%	1.45250%	15.48509%	11.52691%	1.45250%
Pasco	WGHTD AVE	147.70392%	42.19141%	30.33263%	98.31193%	108.94881%	98.87958%	73.26864%	108.94881%	98.87958%	73.26864%
Pinellas	WGHTD AVE	161.88949%	75.85804%	35.20534%	143.16678%	131.42478%	123.22312%	102.31120%	131.42478%	123.22312%	102.31120%
Polk	WGHTD AVE	122.31077%	23.69237%	29.51682%	70.00212%	86.20872%	76.90632%	53.15954%	86.20872%	76.90632%	53.15954%
Putnam	WGHTD AVE	115.73413%	25.60958%	47.17658%	68.98346%	74.83055%	64.86741%	42.64493%	74.83055%	64.86741%	42.64493%
St. Johns	WGHTD AVE	21.51742%	-22.14076%	21.38858%	-2.98742%	0.99175%	-4.35144%	-16.03084%	0.99175%	-4.35144%	-16.03084%
St. Lucie	WGHTD AVE	44.33151%	-5.09249%	24.87776%	27.65358%	27.17561%	22.56349%	10.78957%	27.17561%	22.56349%	10.78957%
Santa Rosa	WGHTD AVE	281.82453%	206.69373%	158.46164%	323.72506%	250.20278%	241.56460%	223.40115%	250.20278%	241.56460%	223.40115%
Sarasota	WGHTD AVE	169.36019%	93.15189%	41.99628%	164.32581%	143.19514%	136.02093%	117.67429%	143.19514%	136.02093%	117.67429%
Seminole	WGHTD AVE	87.56329%	-10.82608%	19.13383%	19.64341%	50.32531%	40.67903%	16.20779%	50.32531%	40.67903%	16.20779%
Sumter	WGHTD AVE	83.06877%	-4.94733%	21.49884%	28.05938%	50.05247%	41.48823%	19.77045%	50.05247%	41.48823%	19.77045%
Suwanee	WGHTD AVE	64.99108%	-18.20837%	8.94747%	9.58378%	23.82135%	13.87933%	-7.85445%	23.82135%	13.87933%	-7.85445%
Taylor	WGHTD AVE	113.95774%	34.52308%	32.31298%	86.44836%	76.65499%	67.68540%	48.20826%	76.65499%	67.68540%	48.20826%
Union	WGHTD AVE	139.31158%	21.14563%	37.20365%	71.01133%	83.44326%	70.13280%	40.32887%	83.44326%	70.13280%	40.32887%

Volusia	WGHTD AVE	77.46590%	-3.47206%	18.10663%	28.54217%	46.73850%	38.85036%	18.96397%	46.73850%	38.85036%	18.96397%
Wakulla	WGHTD AVE	100.25274%	9.73958%	17.93848%	54.60025%	57.18266%	46.98333%	24.57720%	57.18266%	46.98333%	24.57720%
Walton	WGHTD AVE	235.51687%	135.05216%	115.08146%	230.11314%	191.96294%	181.10114%	157.55289%	191.96294%	181.10114%	157.55289%
Washington	WGHTD AVE	257.23438%	136.64425%	116.28109%	237.70783%	204.33222%	191.44555%	163.14033%	204.33222%	191.44555%	163.14033%
STATEWIDE	WGHTD AVE	93.58411%	20.06765%	28.86579%	61.27057%	66.37689%	59.28500%	41.48983%	66.37689%	59.28500%	41.48983%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - Renters -- FRAME

COUNTY	LOSS COSTS	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-80.29053%	273.12585%	-86.51963%	-82.37900%	-66.16457%	-87.99687%	-86.51963%	-79.69036%
Baker	WGHTD AVE	-78.44406%	634.54440%	-86.16104%	-81.29265%	-60.85280%	-87.77531%	-86.16104%	-78.15161%
Bay	WGHTD AVE	-58.05659%	227.58250%	-52.15090%	-41.87109%	-13.11444%	-56.39130%	-52.15090%	-36.23016%
Bradford	WGHTD AVE	-80.43319%	306.19717%	-87.89756%	-84.01774%	-68.18958%	-89.23743%	-87.89756%	-81.44080%
Brevard	WGHTD AVE	-85.56916%	-67.48289%	-88.46398%	-87.77400%	-85.97400%	-88.76519%	-88.46398%	-87.39997%
Broward	WGHTD AVE	-57.42028%	24.49419%	-46.25376%	-41.06832%	-30.55111%	-48.83198%	-46.25376%	-38.68347%
Calhoun	WGHTD AVE	-74.88279%	392.42839%	-82.57439%	-77.19150%	-56.11822%	-84.45981%	-82.57439%	-73.74633%
Charlotte	WGHTD AVE	-70.43946%	47.61538%	-66.46026%	-60.87788%	-46.63837%	-68.90284%	-66.46026%	-57.95218%
Citrus	WGHTD AVE	-77.95943%	60.07349%	-80.18708%	-75.87810%	-63.00768%	-81.91070%	-80.18708%	-73.43604%
Clay	WGHTD AVE	-80.10181%	146.66866%	-86.18662%	-82.28935%	-68.32228%	-87.61781%	-86.18662%	-79.85857%
Collier	WGHTD AVE	-70.89655%	35.77517%	-68.37022%	-63.77012%	-51.91961%	-70.38279%	-68.37022%	-61.34332%
Columbia	WGHTD AVE	-79.72277%	526.36254%	-86.48590%	-81.90680%	-62.79296%	-88.07589%	-86.48590%	-78.82645%
De Soto	WGHTD AVE	-78.22213%	25.60593%	-79.82734%	-76.20413%	-65.91434%	-81.32505%	-79.82734%	-74.19157%
Dixie	WGHTD AVE	-76.23163%	215.37973%	-76.71521%	-69.88905%	-46.68668%	-79.27698%	-76.71521%	-65.81994%
Duval	WGHTD AVE	-81.26698%	13.56179%	-86.43016%	-83.63414%	-75.29269%	-87.53348%	-86.43016%	-82.02640%
Escambia	WGHTD AVE	-29.59585%	692.62770%	3.38744%	29.63989%	104.73496%	-7.38150%	3.38744%	44.08949%
Flagler	WGHTD AVE	-77.11509%	-19.97180%	-79.06163%	-76.54736%	-70.32875%	-80.17871%	-79.06163%	-75.23095%
Franklin	WGHTD AVE	-58.74368%	70.70441%	-50.30635%	-41.65663%	-20.45908%	-54.11886%	-50.30635%	-37.23350%
Gadsen	WGHTD AVE	-79.89603%	441.03826%	-87.53905%	-83.34448%	-66.08928%	-88.93739%	-87.53905%	-80.57221%
Gilchrist	WGHTD AVE	-76.24110%	405.95250%	-79.70439%	-73.40460%	-49.78236%	-81.99999%	-79.70439%	-69.47010%
Glades	WGHTD AVE	-81.60218%	-37.87500%	-85.48110%	-83.88272%	-79.41759%	-86.15613%	-85.48110%	-82.98309%
Gulf	WGHTD AVE	-65.62786%	318.65820%	-63.57823%	-53.73076%	-21.85926%	-67.37070%	-63.57823%	-47.95787%
Hamilton	WGHTD AVE	-84.52030%	431.47656%	-90.02666%	-86.65423%	-72.51125%	-91.21835%	-90.02666%	-84.44358%
Hardee	WGHTD AVE	-78.76011%	16.60787%	-81.87594%	-78.77688%	-69.69134%	-83.13647%	-81.87594%	-77.01359%
Hendry	WGHTD AVE	-85.16775%	-60.63134%	-88.42850%	-87.68923%	-85.54354%	-88.73268%	-88.42850%	-87.26482%
Hernando	WGHTD AVE	-76.82022%	110.80055%	-78.18700%	-73.02932%	-57.00375%	-80.20786%	-78.18700%	-70.06145%
Highlands	WGHTD AVE	-80.61985%	-2.38833%	-85.59683%	-83.24069%	-76.11900%	-86.53650%	-85.59683%	-81.86991%
Hillsborough	WGHTD AVE	-74.42885%	82.68004%	-72.84036%	-67.22975%	-51.29566%	-75.15884%	-72.84036%	-64.12778%

Holmes	WGHTD AVE	-70.66935%	450.35429%	-76.19784%	-68.89149%	-41.42797%	-78.77372%	-76.19784%	-64.36574%
Indian River	WGHTD AVE	-82.63685%	-63.19065%	-85.07996%	-84.37444%	-82.53578%	-85.39247%	-85.07996%	-83.99209%
Jackson	WGHTD AVE	-79.98666%	153.84098%	-87.52382%	-84.14768%	-71.69036%	-88.72753%	-87.52382%	-82.00010%
Jefferson	WGHTD AVE	-85.86586%	178.38992%	-90.68189%	-87.69243%	-75.87897%	-91.75760%	-90.68189%	-85.71796%
Lafayette	WGHTD AVE	-79.32087%	683.33333%	-84.07407%	-78.56366%	-56.25000%	-85.95953%	-84.07407%	-74.93506%
Lake	WGHTD AVE	-81.31909%	-14.58243%	-86.15829%	-83.99837%	-77.66885%	-87.02909%	-86.15829%	-82.76271%
Lee	WGHTD AVE	-74.68139%	21.20278%	-74.09536%	-70.38335%	-60.69785%	-75.71041%	-74.09536%	-68.41009%
Leon	WGHTD AVE	-80.80009%	395.72623%	-86.74718%	-82.29647%	-64.47886%	-88.28061%	-86.74718%	-79.46160%
Levy	WGHTD AVE	-78.89345%	118.90192%	-81.75069%	-76.95991%	-60.95332%	-83.58291%	-81.75069%	-74.09818%
Liberty	WGHTD AVE	-78.38091%	504.70935%	-85.72626%	-80.99365%	-61.49270%	-87.33335%	-85.72626%	-77.88196%
Madison	WGHTD AVE	-84.17568%	226.00530%	-89.76244%	-86.50625%	-73.42421%	-90.91919%	-89.76244%	-84.38872%
Manatee	WGHTD AVE	-72.98388%	29.59018%	-69.15766%	-64.33837%	-52.33667%	-71.29442%	-69.15766%	-61.85147%
Marion	WGHTD AVE	-80.70470%	45.09189%	-86.33127%	-83.31519%	-73.51065%	-87.48436%	-86.33127%	-81.52300%
Martin	WGHTD AVE	-68.09697%	-23.36865%	-65.47251%	-63.24501%	-58.53308%	-66.57518%	-65.47251%	-62.19963%
Miami-Dade	WGHTD AVE	-50.67512%	31.35878%	-38.34867%	-33.30640%	-23.05608%	-40.88734%	-38.34867%	-31.00039%
Monroe	WGHTD AVE	-22.58841%	97.11693%	3.68319%	13.52443%	33.64193%	-1.25856%	3.68319%	18.02675%
Nassau	WGHTD AVE	-88.61323%	-49.66844%	-92.63806%	-91.46528%	-87.99218%	-93.12373%	-92.63806%	-90.78023%
Okaloosa	WGHTD AVE	-39.20385%	388.92409%	-17.89256%	-0.72879%	44.94450%	-25.15043%	-17.89256%	8.37891%
Okeechobee	WGHTD AVE	-87.59179%	-71.84137%	-91.96468%	-91.48227%	-89.90915%	-92.14139%	-91.96468%	-91.18057%
Orange	WGHTD AVE	-83.32157%	-33.05696%	-88.90842%	-87.31946%	-82.58836%	-89.54146%	-88.90842%	-86.39790%
Osceola	WGHTD AVE	-82.57849%	-16.11143%	-88.35599%	-86.42075%	-80.47853%	-89.11443%	-88.35599%	-85.27857%
Palm Beach	WGHTD AVE	-60.04238%	17.30832%	-50.90655%	-45.94682%	-35.83041%	-53.35128%	-50.90655%	-43.65114%
Pasco	WGHTD AVE	-76.59549%	82.57652%	-77.25002%	-72.30613%	-57.51907%	-79.24018%	-77.25002%	-69.49685%
Pinellas	WGHTD AVE	-70.42668%	67.19401%	-64.95095%	-58.62782%	-42.45510%	-67.70116%	-64.95095%	-55.31644%
Polk	WGHTD AVE	-79.90551%	18.67678%	-83.68239%	-80.69860%	-71.67803%	-84.87384%	-83.68239%	-78.97934%
Putnam	WGHTD AVE	-78.22442%	193.07381%	-83.64322%	-79.07675%	-62.51809%	-85.30506%	-83.64322%	-76.19439%
St. Johns	WGHTD AVE	-80.11487%	-24.40272%	-83.13039%	-80.84176%	-74.92645%	-84.13587%	-83.13039%	-79.60536%
St. Lucie	WGHTD AVE	-67.98919%	-12.21963%	-65.35463%	-62.42370%	-56.07952%	-66.76963%	-65.35463%	-61.02065%
Santa Rosa	WGHTD AVE	-47.77657%	229.36750%	-34.55541%	-23.52426%	3.82461%	-39.42004%	-34.55541%	-17.83372%
Sarasota	WGHTD AVE	-72.86722%	64.18712%	-68.95305%	-63.29765%	-48.32851%	-71.36765%	-68.95305%	-60.28426%
Seminole	WGHTD AVE	-84.14060%	-41.26326%	-90.10689%	-88.79300%	-84.81080%	-90.62628%	-90.10689%	-88.01318%
Sumter	WGHTD AVE	-84.16382%	-35.10859%	-89.18530%	-87.60246%	-82.87065%	-89.81866%	-89.18530%	-86.68803%
Suwanee	WGHTD AVE	-83.63008%	362.67467%	-89.53952%	-86.00230%	-71.34536%	-90.77329%	-89.53952%	-83.59809%
Taylor	WGHTD AVE	-77.34428%	385.64104%	-78.00066%	-70.97023%	-45.50903%	-80.62239%	-78.00066%	-66.62117%
Union	WGHTD AVE	-81.00735%	390.70661%	-87.98027%	-83.96847%	-67.22661%	-89.36817%	-87.98027%	-81.33851%

Volusia	WGHTD AVE	-82.56918%	-44.15016%	-86.26452%	-84.77544%	-80.86828%	-86.90330%	-86.26452%	-83.96385%
Wakulla	WGHTD AVE	-81.23294%	423.51884%	-85.30304%	-80.45196%	-61.41673%	-87.00911%	-85.30304%	-77.33106%
Walton	WGHTD AVE	-55.90964%	288.89884%	-46.59052%	-34.44732%	0.34738%	-51.55685%	-46.59052%	-27.73087%
Washington	WGHTD AVE	-62.89744%	667.24372%	-62.96230%	-51.64785%	-10.77858%	-67.11833%	-62.96230%	-44.75070%
STATEWIDE	WGHTD AVE	-74.11287%	20.94448%	-73.64271%	-69.40272%	-58.75824%	-75.49597%	-73.64271%	-67.18828%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - Renters -- MASONRY

COUNTY	LOSS COSTS	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-80.46269%	350.75352%	-87.13371%	-83.08983%	-66.79453%	-88.54953%	-87.13371%	-80.45434%
Baker	WGHTD AVE	-78.60027%	828.65506%	-86.78158%	-82.09291%	-61.86820%	-88.35465%	-86.78158%	-78.92598%
Bay	WGHTD AVE	-60.44095%	311.24952%	-56.59503%	-48.14431%	-24.84861%	-60.11384%	-56.59503%	-43.53124%
Bradford	WGHTD AVE	-80.93943%	347.94490%	-88.72584%	-85.10578%	-69.85114%	-90.01192%	-88.72584%	-82.68873%
Brevard	WGHTD AVE	-87.60129%	-70.86606%	-91.17313%	-90.64506%	-89.13275%	-91.39295%	-91.17313%	-90.33951%
Broward	WGHTD AVE	-70.60004%	4.83495%	-65.71859%	-61.80866%	-53.36612%	-67.57145%	-65.71859%	-59.93045%
Calhoun	WGHTD AVE	-75.48565%	472.50248%	-83.81765%	-78.70650%	-58.04719%	-85.56879%	-83.81765%	-75.38304%
Charlotte	WGHTD AVE	-77.00659%	46.09976%	-77.68730%	-73.55003%	-61.69964%	-79.39238%	-77.68730%	-71.25628%
Citrus	WGHTD AVE	-79.79708%	86.11413%	-83.90534%	-80.04886%	-67.46394%	-85.39172%	-83.90534%	-77.76450%
Clay	WGHTD AVE	-80.16845%	220.97296%	-86.79656%	-82.87599%	-67.87123%	-88.19830%	-86.79656%	-80.30363%
Collier	WGHTD AVE	-75.62147%	31.37864%	-76.28136%	-72.49398%	-61.93015%	-77.86529%	-76.28136%	-70.41505%
Columbia	WGHTD AVE	-79.81341%	693.50191%	-87.20327%	-82.69096%	-63.62663%	-88.67214%	-87.20327%	-79.75448%
De Soto	WGHTD AVE	-79.88423%	34.91469%	-83.25117%	-79.98234%	-70.00292%	-84.54770%	-83.25117%	-78.10465%
Dixie	WGHTD AVE	-78.93263%	460.73864%	-81.98916%	-76.30888%	-54.55059%	-84.06516%	-81.98916%	-72.69437%
Duval	WGHTD AVE	-82.24137%	14.63931%	-87.87604%	-85.34823%	-77.56371%	-88.86079%	-87.87604%	-83.86955%
Escambia	WGHTD AVE	-34.83336%	676.04030%	-8.07632%	15.03312%	82.04344%	-17.43865%	-8.07632%	27.84787%
Flagler	WGHTD AVE	-79.50619%	-15.05731%	-83.42693%	-81.09048%	-74.84551%	-84.40999%	-83.42693%	-79.83058%
Franklin	WGHTD AVE	-68.12675%	-6.55507%	-66.02894%	-62.01217%	-52.47619%	-67.86765%	-66.02894%	-59.97696%
Gadsen	WGHTD AVE	-81.23445%	444.24442%	-88.85043%	-85.10983%	-69.61753%	-90.11757%	-88.85043%	-82.64349%
Gilchrist	WGHTD AVE	-76.50222%	535.62266%	-80.68686%	-74.59334%	-50.87670%	-82.82246%	-80.68686%	-70.72188%
Glades	WGHTD AVE	-83.04032%	-34.46602%	-88.10951%	-86.60124%	-82.08556%	-88.72344%	-88.10951%	-85.73936%
Gulf	WGHTD AVE	-64.25605%	436.51064%	-62.35737%	-51.43390%	-13.75586%	-66.45617%	-62.35737%	-44.85927%
Hamilton	WGHTD AVE	-84.43846%	637.53214%	-90.30544%	-86.92486%	-72.36577%	-91.45676%	-90.30544%	-84.68157%
Hardee	WGHTD AVE	-80.88678%	28.97587%	-85.95389%	-83.21547%	-74.34052%	-87.01037%	-85.95389%	-81.57660%
Hendry	WGHTD AVE	-87.45461%	-67.22614%	-91.46047%	-90.93502%	-89.24635%	-91.65642%	-91.46047%	-90.61446%
Hernando	WGHTD AVE	-77.86325%	157.06009%	-80.71206%	-75.81473%	-59.41670%	-82.59680%	-80.71206%	-72.89337%
Highlands	WGHTD AVE	-81.87347%	14.47849%	-88.14658%	-85.86610%	-78.33803%	-89.00993%	-88.14658%	-84.48233%
Hillsborough	WGHTD AVE	-77.57184%	101.82379%	-78.84953%	-74.04675%	-59.13248%	-80.74754%	-78.84953%	-71.27655%

Holmes	WGHTD AVE	-72.30749%	583.80177%	-79.15978%	-72.77084%	-47.31381%	-81.46431%	-79.15978%	-68.55353%
Indian River	WGHTD AVE	-84.64841%	-65.03804%	-88.12408%	-87.50303%	-85.75418%	-88.38217%	-88.12408%	-87.15043%
Jackson	WGHTD AVE	-80.38897%	71.43239%	-88.49411%	-85.58535%	-74.78216%	-89.54137%	-88.49411%	-83.69469%
Jefferson	WGHTD AVE	-86.08417%	254.23338%	-91.05966%	-88.16179%	-76.23724%	-92.09093%	-91.05966%	-86.21591%
Lafayette	WGHTD AVE	-80.67460%	782.08750%	-86.11343%	-81.27988%	-61.04571%	-87.73579%	-86.11343%	-78.08546%
Lake	WGHTD AVE	-82.29288%	-1.22455%	-88.35381%	-86.21808%	-79.41711%	-89.18877%	-88.35381%	-84.93724%
Lee	WGHTD AVE	-77.58398%	33.84990%	-79.30167%	-75.72974%	-65.36001%	-80.76967%	-79.30167%	-73.72010%
Leon	WGHTD AVE	-80.43467%	564.90751%	-86.84285%	-82.33439%	-63.67939%	-88.37398%	-86.84285%	-79.37678%
Levy	WGHTD AVE	-80.34731%	161.79652%	-84.29468%	-79.96479%	-64.71379%	-85.89165%	-84.29468%	-77.30822%
Liberty	WGHTD AVE	-78.60906%	742.71059%	-86.44402%	-81.85091%	-62.27400%	-87.96662%	-86.44402%	-78.76227%
Madison	WGHTD AVE	-84.60228%	287.40537%	-90.50814%	-87.36114%	-74.54390%	-91.56678%	-90.50814%	-85.31885%
Manatee	WGHTD AVE	-76.72059%	40.34134%	-75.54673%	-71.33010%	-60.07101%	-77.33737%	-75.54673%	-69.07016%
Marion	WGHTD AVE	-81.46576%	74.90323%	-88.18578%	-85.28275%	-75.06367%	-89.26092%	-88.18578%	-83.48941%
Martin	WGHTD AVE	-76.45496%	-34.70064%	-77.97870%	-76.13553%	-71.89256%	-78.83947%	-77.97870%	-75.21857%
Miami-Dade	WGHTD AVE	-64.61367%	16.91963%	-57.75854%	-53.73168%	-45.23161%	-59.71568%	-57.75854%	-51.83420%
Monroe	WGHTD AVE	-35.88605%	105.07968%	-15.77551%	-8.94625%	4.98615%	-19.20465%	-15.77551%	-5.82192%
Nassau	WGHTD AVE	-88.78192%	-34.10735%	-93.01146%	-91.85079%	-88.21183%	-93.47003%	-93.01146%	-91.12516%
Okaloosa	WGHTD AVE	-45.87261%	520.45279%	-29.41428%	-15.47208%	21.94845%	-35.33118%	-29.41428%	-7.98257%
Okeechobee	WGHTD AVE	-88.10303%	-70.30685%	-93.14282%	-92.64280%	-90.97075%	-93.32078%	-93.14282%	-92.32341%
Orange	WGHTD AVE	-84.28719%	-27.48346%	-90.72445%	-89.19492%	-84.33629%	-91.31591%	-90.72445%	-88.27531%
Osceola	WGHTD AVE	-83.13875%	-6.19045%	-89.69299%	-87.74124%	-81.36359%	-90.43993%	-89.69299%	-86.56084%
Palm Beach	WGHTD AVE	-71.48868%	4.82323%	-67.50928%	-63.45808%	-54.59900%	-69.40696%	-67.50928%	-61.49745%
Pasco	WGHTD AVE	-78.99640%	100.25627%	-81.75405%	-77.47114%	-63.62103%	-83.41393%	-81.75405%	-74.94757%
Pinellas	WGHTD AVE	-76.38071%	79.47658%	-75.30859%	-70.31533%	-56.10070%	-77.36235%	-75.30859%	-67.55494%
Polk	WGHTD AVE	-81.29724%	35.88515%	-86.58005%	-83.80949%	-74.70763%	-87.64285%	-86.58005%	-82.14805%
Putnam	WGHTD AVE	-78.65007%	229.11288%	-84.56389%	-80.17874%	-63.85530%	-86.12737%	-84.56389%	-77.38759%
St. Johns	WGHTD AVE	-80.11886%	-10.33190%	-83.57510%	-81.11781%	-74.40795%	-84.61448%	-83.57510%	-79.75723%
St. Lucie	WGHTD AVE	-76.70749%	-24.12456%	-78.47139%	-76.31036%	-71.21108%	-79.45510%	-78.47139%	-75.21705%
Santa Rosa	WGHTD AVE	-54.42207%	166.30194%	-47.08614%	-40.06955%	-23.06266%	-50.23626%	-47.08614%	-36.48014%
Sarasota	WGHTD AVE	-77.22720%	73.06517%	-76.46954%	-71.84075%	-58.57787%	-78.37314%	-76.46954%	-69.27884%
Seminole	WGHTD AVE	-84.40628%	-31.73033%	-91.15583%	-89.74063%	-85.22120%	-91.69534%	-91.15583%	-88.88423%
Sumter	WGHTD AVE	-83.30507%	-5.38536%	-89.07097%	-87.06514%	-80.71616%	-89.83951%	-89.07097%	-85.88140%
Suwanee	WGHTD AVE	-83.77897%	440.79549%	-89.96393%	-86.47924%	-71.96014%	-91.10112%	-89.96393%	-84.15646%
Taylor	WGHTD AVE	-79.08588%	457.08175%	-81.23907%	-75.14093%	-52.19570%	-83.42082%	-81.23907%	-71.30130%
Union	WGHTD AVE	-81.91375%	431.86058%	-89.22175%	-85.56962%	-70.07960%	-90.45414%	-89.22175%	-83.10379%

Volusia	WGHTD AVE	-84.55544%	-38.69210%	-89.00271%	-87.76709%	-84.32907%	-89.51975%	-89.00271%	-87.06799%
Wakulla	WGHTD AVE	-78.73435%	393.41952%	-81.17532%	-75.70306%	-56.58201%	-83.18847%	-81.17532%	-72.36551%
Walton	WGHTD AVE	-55.40380%	236.99908%	-45.52862%	-35.42285%	-8.42368%	-49.81764%	-45.52862%	-29.99159%
Washington	WGHTD AVE	-64.32480%	849.73236%	-66.27910%	-55.64330%	-15.38373%	-70.07713%	-66.27910%	-48.91811%
STATEWIDE	WGHTD AVE	-75.51618%	3.72765%	-74.80135%	-71.19939%	-62.44367%	-76.40597%	-74.80135%	-69.35139%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - CONDO -- FRAME

COUNTY	LOSS COSTS	$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-26.57761%	-80.45328%	283.01077%	-81.89896%	-87.20735%	-81.28108%	-72.82389%	-75.28415%	-78.55385%
Baker	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Bay	WGHTD AVE	12.55628%	-56.07720%	132.74515%	-47.07435%	-49.41169%	-36.91070%	-40.53277%	-42.58502%	-45.40229%
Bradford	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Brevard	WGHTD AVE	-30.30211%	-86.45578%	-70.67213%	-85.61775%	-88.83436%	-88.23771%	-80.47421%	-81.53375%	-83.36341%
Broward	WGHTD AVE	28.34468%	-57.16659%	22.96551%	-43.02339%	-45.04273%	-39.03829%	-41.25022%	-41.99438%	-42.94965%
Calhoun	WGHTD AVE	-3.96476%	-73.90524%	0.00000%	-75.29525%	-81.92735%	-73.71082%	-63.51130%	-66.54774%	-70.87397%
Charlotte	WGHTD AVE	33.73603%	-62.03058%	61.49960%	-51.53753%	-55.03150%	-45.42782%	-47.71705%	-49.00013%	-50.59322%
Citrus	WGHTD AVE	30.16579%	-78.47154%	51.15947%	-73.26808%	-80.43399%	-74.68888%	-64.53066%	-66.61393%	-69.74873%
Clay	WGHTD AVE	-25.76002%	-80.13384%	147.98350%	-81.44824%	-86.62183%	-81.08908%	-72.49080%	-74.93262%	-78.16042%
Collier	WGHTD AVE	31.22388%	-71.78676%	23.85278%	-63.66724%	-68.91384%	-63.40390%	-57.01015%	-58.53022%	-60.98405%
Columbia	WGHTD AVE	-20.27579%	-79.71452%	580.89923%	-81.60942%	-87.71331%	-81.21497%	-71.74950%	-74.54877%	-78.04225%
De Soto	WGHTD AVE	26.29511%	-77.66479%	25.53628%	-72.03460%	-78.54609%	-73.60092%	-63.92326%	-65.75507%	-68.67212%
Dixie	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Duval	WGHTD AVE	-29.67819%	-80.51747%	29.54450%	-81.52645%	-85.86368%	-81.55885%	-73.42470%	-75.62250%	-78.57826%
Escambia	WGHTD AVE	76.77119%	-23.88906%	580.65398%	9.91995%	14.37873%	51.97726%	5.77774%	4.45432%	4.41448%
Flagler	WGHTD AVE	15.37315%	-77.40838%	-27.47172%	-73.27996%	-78.48971%	-75.64792%	-66.12653%	-67.76455%	-70.32785%
Franklin	WGHTD AVE	74.44216%	-13.41956%	528.96786%	26.76415%	35.15006%	81.50430%	15.41492%	14.66178%	16.82908%
Gadsen	WGHTD AVE	-11.61905%	0.00000%	0.00000%	-78.47854%	-85.01441%	-77.05628%	-67.98208%	-71.00067%	-74.77932%
Gilchrist	WGHTD AVE	0.00000%	-74.87824%	0.00000%	-73.49296%	-78.22791%	-68.23168%	-64.71263%	-67.14222%	-70.48797%
Glades	WGHTD AVE	7.58590%	-81.66748%	0.00000%	-79.30739%	-85.07415%	-83.16396%	-71.09893%	-72.77349%	-75.68412%
Gulf	WGHTD AVE	30.47375%	-55.90971%	995.23810%	-42.98157%	-44.94607%	-18.88376%	-37.24205%	-39.71396%	-42.62109%
Hamilton	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Hardee	WGHTD AVE	27.50150%	-78.75807%	13.82550%	-74.18194%	-81.25915%	-77.27147%	-65.23325%	-67.14642%	-70.34256%
Hendry	WGHTD AVE	-28.15956%	-87.28168%	-69.49051%	-86.26969%	-89.73954%	-89.33919%	-80.71826%	-81.78113%	-83.75833%
Hernando	WGHTD AVE	46.00578%	-76.03969%	122.24941%	-68.57450%	-76.25378%	-68.26749%	-59.74535%	-61.95001%	-65.15055%
Highlands	WGHTD AVE	23.55396%	-80.99357%	-8.86392%	-78.20301%	-85.59211%	-82.73735%	-68.52643%	-70.57186%	-73.97554%
Hillsborough	WGHTD AVE	37.05466%	-74.61945%	88.19595%	-66.15187%	-72.48798%	-64.62523%	-58.93221%	-60.77650%	-63.45295%

Holmes	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Indian River	WGHTD AVE	-18.54815%	-82.95584%	-64.06725%	-81.14567%	-84.39088%	-83.80077%	-75.85987%	-76.91472%	-78.80908%
Jackson	WGHTD AVE	-25.47771%	0.00000%	0.00000%	-84.41247%	-90.40590%	-85.34734%	-74.55874%	-77.31901%	-80.76601%
Jefferson	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Lafayette	WGHTD AVE	-23.66771%	-79.32087%	0.00000%	-79.53830%	-84.53404%	-76.48415%	-70.95021%	-73.39767%	-76.56990%
Lake	WGHTD AVE	21.96112%	-79.59762%	-4.87673%	-75.77582%	-82.45496%	-79.08365%	-67.05927%	-68.97241%	-72.06779%
Lee	WGHTD AVE	25.34318%	-75.47732%	0.50253%	-68.98833%	-73.81163%	-69.87108%	-62.51493%	-63.93865%	-66.29383%
Leon	WGHTD AVE	-20.45785%	-78.63738%	540.29339%	-79.34093%	-84.86120%	-77.14292%	-70.10016%	-72.68987%	-76.04745%
Levy	WGHTD AVE	-1.68612%	-67.74293%	686.41975%	-59.48580%	-61.61772%	-42.80763%	-54.41052%	-56.50836%	-58.89237%
Liberty	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Madison	WGHTD AVE	-38.33581%	-83.70572%	215.27778%	-84.71712%	-89.06536%	-83.95887%	-77.28780%	-79.37736%	-82.04731%
Manatee	WGHTD AVE	14.01963%	-70.54246%	12.28912%	-61.72871%	-64.85972%	-58.84519%	-57.87146%	-58.98858%	-60.48885%
Marion	WGHTD AVE	40.29118%	-79.37996%	56.12435%	-75.79203%	-84.69911%	-80.23070%	-64.94603%	-67.39084%	-71.20384%
Martin	WGHTD AVE	15.03269%	-67.95604%	-23.45847%	-60.92494%	-64.58024%	-62.32006%	-55.77180%	-56.87754%	-58.89279%
Miami-Dade	WGHTD AVE	31.43063%	-48.83243%	24.21123%	-33.90326%	-35.46517%	-30.20999%	-32.63483%	-33.21913%	-33.94848%
Monroe	WGHTD AVE	89.72762%	-25.22069%	127.63790%	4.47623%	4.37272%	16.76698%	2.84299%	2.45827%	2.43209%
Nassau	WGHTD AVE	-59.88653%	-88.97305%	-55.33290%	-90.40030%	-92.89691%	-91.41485%	-85.37554%	-86.68258%	-88.48314%
Okaloosa	WGHTD AVE	37.09402%	-44.04633%	235.15965%	-26.14725%	-26.17373%	-8.82633%	-23.39540%	-24.92877%	-26.67109%
Okeechobee	WGHTD AVE	-30.85732%	-89.03615%	-75.78978%	-89.28408%	-93.02272%	-92.68408%	-83.28282%	-84.47597%	-86.58956%
Orange	WGHTD AVE	10.00586%	-83.93096%	-39.89506%	-82.59189%	-89.27804%	-87.52925%	-73.52403%	-75.43003%	-78.61162%
Osceola	WGHTD AVE	21.95720%	-82.43175%	-13.18147%	-80.09309%	-87.67494%	-85.02818%	-70.38386%	-72.46249%	-75.86376%
Palm Beach	WGHTD AVE	27.74190%	-61.62695%	9.83173%	-49.11057%	-51.77744%	-46.56110%	-46.26392%	-47.15929%	-48.46819%
Pasco	WGHTD AVE	26.91090%	-77.56257%	57.85836%	-71.67697%	-78.31248%	-72.28895%	-63.68802%	-65.60027%	-68.48322%
Pinellas	WGHTD AVE	32.92595%	-71.54123%	65.03172%	-60.86644%	-65.17698%	-56.68784%	-55.94932%	-57.41795%	-59.33241%
Polk	WGHTD AVE	30.54014%	-79.47970%	28.35983%	-75.26935%	-82.96497%	-78.80609%	-65.77887%	-67.85269%	-71.20998%
Putnam	WGHTD AVE	-21.78478%	-77.58402%	162.51510%	-78.32697%	-83.38249%	-77.00801%	-69.12429%	-71.51071%	-74.89586%
St. Johns	WGHTD AVE	-40.02086%	-80.33778%	-29.41725%	-80.30342%	-83.06727%	-80.22730%	-74.21482%	-75.74571%	-78.05742%
St. Lucie	WGHTD AVE	13.66605%	-71.13285%	-32.75735%	-64.86033%	-68.55607%	-66.85280%	-59.41815%	-60.53527%	-62.62837%
Santa Rosa	WGHTD AVE	4.14548%	-55.09615%	48.12662%	-45.96921%	-47.45241%	-40.61197%	-41.39677%	-42.73863%	-44.76666%
Sarasota	WGHTD AVE	29.26664%	-74.27323%	52.14905%	-65.01964%	-69.87367%	-62.90554%	-59.33169%	-60.80861%	-62.94708%
Seminole	WGHTD AVE	8.12640%	-84.41623%	-45.07892%	-83.62731%	-90.20785%	-88.66925%	-74.57208%	-76.48889%	-79.63864%
Sumter	WGHTD AVE	14.28901%	-82.00706%	-28.23251%	-79.68501%	-86.26888%	-83.88351%	-70.79170%	-72.68646%	-75.82935%
Suwanee	WGHTD AVE	-17.23273%	-80.26453%	400.35171%	-78.21295%	-83.20014%	-75.12293%	-69.53381%	-72.01118%	-75.20846%
Taylor	WGHTD AVE	-12.61872%	-73.23853%	505.00000%	-68.73508%	-71.99461%	-58.53327%	-62.29484%	-64.49486%	-67.15517%
Union	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%

Volusia	WGHTD AVE	-7.01280%	-84.51835%	-56.07726%	-82.69374%	-87.12965%	-85.90023%	-76.16034%	-77.54001%	-79.85630%
Wakulla	WGHTD AVE	-27.60479%	-78.78053%	172.66178%	-76.32747%	-79.68005%	-71.12317%	-69.97760%	-71.94051%	-74.38084%
Walton	WGHTD AVE	20.73275%	-54.19289%	212.75297%	-40.18253%	-41.37163%	-24.85136%	-35.41619%	-37.29329%	-39.63876%
Washington	WGHTD AVE	5.67613%	-71.21058%	936.11111%	-71.21212%	-78.06862%	-66.87192%	-59.44683%	-62.73786%	-67.09890%
STATEWIDE	WGHTD AVE	15.05226%	-69.62809%	2.53151%	-61.94198%	-65.52768%	-60.29347%	-57.00226%	-58.31527%	-60.26011%

Constructed from Nov 2005 ROA and March 2006 components

PERSONAL RESIDENTIAL - CONDO -- MASONRY

COUNTY	LOSS COSTS	$0 DEDUCTIBLE			$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
		STRUCTURE	CONTENTS	ADDITIONAL LIVING EXPENSE						
Alachua	WGHTD AVE	-24.07681%	-80.45517%	361.67699%	-82.16761%	-87.65696%	-81.77374%	-72.81434%	-75.31580%	-78.75802%
Baker	WGHTD AVE	-9.41620%	0.00000%	0.00000%	-79.70835%	-86.65096%	-79.58333%	-68.75883%	-71.81264%	-75.81340%
Bay	WGHTD AVE	10.51162%	-60.63894%	122.07460%	-53.70465%	-56.68574%	-46.90592%	-46.29059%	-48.35620%	-51.49485%
Bradford	WGHTD AVE	-24.00380%	-77.64324%	913.06909%	-81.09570%	-87.39640%	-80.90365%	-70.84641%	-73.63923%	-77.39181%
Brevard	WGHTD AVE	-40.54875%	-89.05579%	-76.79601%	-88.90282%	-91.81793%	-91.48470%	-84.21278%	-85.19799%	-86.82485%
Broward	WGHTD AVE	13.98143%	-70.37845%	2.67856%	-60.93713%	-64.49240%	-59.87011%	-56.97995%	-58.12387%	-59.66432%
Calhoun	WGHTD AVE	-6.43441%	-77.92306%	0.00000%	-78.25463%	-84.94174%	-77.73142%	-66.69866%	-69.71452%	-73.97914%
Charlotte	WGHTD AVE	25.61316%	-76.18451%	64.08152%	-69.38441%	-75.59268%	-69.21568%	-62.07864%	-63.90462%	-66.49183%
Citrus	WGHTD AVE	24.95683%	-79.80758%	88.23026%	-75.69317%	-83.43848%	-77.87252%	-66.70762%	-68.95205%	-72.02805%
Clay	WGHTD AVE	-24.37618%	-80.26275%	183.55630%	-81.71480%	-86.94059%	-81.36243%	-72.68143%	-75.13840%	-78.46826%
Collier	WGHTD AVE	20.50671%	-76.19947%	20.43957%	-70.30376%	-76.05650%	-71.48437%	-62.99785%	-64.66507%	-67.24518%
Columbia	WGHTD AVE	-18.56694%	-79.99195%	765.72286%	-81.95421%	-88.17763%	-81.74580%	-72.03534%	-74.83834%	-78.44685%
De Soto	WGHTD AVE	21.26411%	-79.28988%	34.98047%	-74.89404%	-81.95979%	-77.36882%	-66.35593%	-68.34399%	-71.29486%
Dixie	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Duval	WGHTD AVE	-38.09876%	-83.96897%	-7.06532%	-85.51782%	-89.34333%	-86.60855%	-78.12520%	-80.03981%	-82.76056%
Escambia	WGHTD AVE	70.48536%	-31.96009%	498.90459%	-3.03344%	-0.73198%	29.79131%	-4.24236%	-5.76022%	-6.71881%
Flagler	WGHTD AVE	7.69999%	-79.87356%	-28.64650%	-76.73221%	-82.12966%	-79.57120%	-69.46733%	-71.16722%	-73.68292%
Franklin	WGHTD AVE	8.99741%	-50.62746%	185.35372%	-37.71793%	-38.33718%	-23.20682%	-34.97072%	-36.60499%	-38.33669%
Gadsen	WGHTD AVE	-30.23256%	-83.12813%	266.66667%	-85.54502%	-90.90611%	-86.46532%	-76.58407%	-79.05952%	-82.28951%
Gilchrist	WGHTD AVE	-34.59459%	-83.28110%	318.75000%	-84.60226%	-89.18704%	-83.96739%	-76.72675%	-78.88989%	-81.79366%
Glades	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Gulf	WGHTD AVE	-14.21384%	-59.19463%	0.00000%	-53.48309%	-57.12956%	-37.65625%	-45.47109%	-48.11197%	-51.71579%
Hamilton	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Hardee	WGHTD AVE	19.96060%	0.00000%	0.00000%	-78.52488%	-86.31579%	-82.72652%	-69.03171%	-71.17626%	-74.40864%
Hendry	WGHTD AVE	-35.58562%	-88.93171%	-73.14243%	-88.83597%	-92.27432%	-91.97075%	-83.38893%	-84.47698%	-86.36537%
Hernando	WGHTD AVE	35.87403%	-77.84617%	189.63919%	-72.43592%	-80.80889%	-73.63163%	-63.14540%	-65.52575%	-68.73720%
Highlands	WGHTD AVE	18.80240%	-82.00574%	9.60728%	-80.16017%	-88.14742%	-85.17201%	-70.24975%	-72.47007%	-75.83251%
Hillsborough	WGHTD AVE	23.69198%	-78.03817%	87.91481%	-72.04642%	-78.82827%	-72.39729%	-64.35450%	-66.31468%	-69.00527%

Holmes	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Indian River	WGHTD AVE	-30.99412%	-86.18345%	-72.24557%	-85.63388%	-88.74220%	-88.47026%	-80.53608%	-81.57164%	-83.35297%
Jackson	WGHTD AVE	-22.90832%	-81.40223%	556.33803%	-84.31715%	-90.35520%	-85.28851%	-74.24961%	-77.03630%	-80.62726%
Jefferson	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Lafayette	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Lake	WGHTD AVE	16.05869%	-82.09412%	-6.00991%	-80.16968%	-87.68385%	-84.84902%	-70.75489%	-72.89646%	-76.09205%
Lee	WGHTD AVE	19.40584%	-77.77807%	22.43029%	-72.60007%	-78.68629%	-74.20643%	-64.92932%	-66.67772%	-69.36434%
Leon	WGHTD AVE	-19.43665%	-79.39486%	726.79363%	-80.46724%	-86.15060%	-78.89720%	-71.05899%	-73.65949%	-77.15484%
Levy	WGHTD AVE	-25.29313%	-76.21255%	221.54208%	-76.94592%	-80.89213%	-72.45639%	-69.47364%	-71.59065%	-74.53464%
Liberty	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Madison	WGHTD AVE	-28.23779%	-82.63003%	1600.00000%	-83.77801%	-89.18182%	-82.72727%	-75.62200%	-78.10271%	-81.07667%
Manatee	WGHTD AVE	6.36047%	-75.93349%	10.88564%	-69.23726%	-73.18467%	-68.16059%	-64.30594%	-65.62524%	-67.40748%
Marion	WGHTD AVE	23.28012%	-81.34765%	28.24614%	-79.14651%	-87.38328%	-83.78601%	-69.10095%	-71.44276%	-74.84591%
Martin	WGHTD AVE	2.73457%	-76.41829%	-41.43746%	-72.58621%	-76.92431%	-75.36967%	-66.42969%	-67.76956%	-69.98652%
Miami-Dade	WGHTD AVE	17.67876%	-64.15847%	2.20502%	-53.67390%	-56.43185%	-52.52951%	-50.54559%	-51.46307%	-52.70697%
Monroe	WGHTD AVE	85.32383%	-35.11963%	87.33106%	-11.60731%	-13.24121%	-5.62602%	-10.63218%	-11.21571%	-12.03097%
Nassau	WGHTD AVE	-58.11241%	-89.04953%	-50.87927%	-90.62619%	-93.26689%	-91.72710%	-85.40579%	-86.74997%	-88.66308%
Okaloosa	WGHTD AVE	30.81278%	-49.38898%	220.61314%	-34.44329%	-35.45809%	-20.13591%	-30.20516%	-31.85994%	-34.16177%
Okeechobee	WGHTD AVE	-31.52297%	-89.37549%	-74.73206%	-90.04401%	-94.07337%	-93.67216%	-83.78681%	-85.09563%	-87.23646%
Orange	WGHTD AVE	5.70573%	-84.53438%	-32.28280%	-83.78218%	-90.81924%	-88.93214%	-74.69745%	-76.72485%	-79.79858%
Osceola	WGHTD AVE	16.56215%	-83.33802%	-6.19185%	-81.74604%	-89.63519%	-86.96474%	-72.09132%	-74.27766%	-77.54051%
Palm Beach	WGHTD AVE	17.91394%	-70.76200%	2.69831%	-61.76997%	-65.73062%	-60.83597%	-57.37130%	-58.63032%	-60.33243%
Pasco	WGHTD AVE	24.80548%	-78.95923%	97.65462%	-73.98014%	-81.21869%	-75.14619%	-65.61731%	-67.72296%	-70.61330%
Pinellas	WGHTD AVE	19.39189%	-75.17453%	66.73655%	-66.89062%	-71.72858%	-64.44675%	-61.32565%	-62.92482%	-64.94990%
Polk	WGHTD AVE	18.22756%	-81.79199%	22.90997%	-79.28058%	-87.04753%	-83.61449%	-69.85460%	-71.99479%	-75.19766%
Putnam	WGHTD AVE	-15.77224%	-78.73437%	248.52150%	-79.50079%	-85.05026%	-78.56068%	-69.80147%	-72.31667%	-75.94644%
St. Johns	WGHTD AVE	-36.82933%	-80.47814%	-19.17566%	-80.57748%	-83.62011%	-80.57801%	-74.04182%	-75.65953%	-78.17711%
St. Lucie	WGHTD AVE	-12.85489%	-82.88335%	-59.09382%	-81.03115%	-85.04797%	-84.44824%	-74.83328%	-76.09675%	-78.29431%
Santa Rosa	WGHTD AVE	18.18949%	-54.32162%	98.23038%	-44.07928%	-46.11427%	-37.47587%	-38.43095%	-40.06152%	-42.63731%
Sarasota	WGHTD AVE	15.88128%	-77.85399%	51.61666%	-71.24232%	-76.67583%	-70.76105%	-64.85346%	-66.48554%	-68.75535%
Seminole	WGHTD AVE	3.84386%	-85.08355%	-39.09963%	-84.79022%	-91.64040%	-90.02147%	-75.76187%	-77.77932%	-80.81974%
Sumter	WGHTD AVE	7.74759%	-82.79917%	-12.71840%	-81.47830%	-88.64585%	-86.17435%	-72.27753%	-74.35529%	-77.48076%
Suwanee	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Taylor	WGHTD AVE	-11.97691%	-74.56826%	601.56250%	-71.31749%	-75.16575%	-63.04654%	-64.10218%	-66.37044%	-69.35371%
Union	WGHTD AVE	-38.36478%	-85.53184%	219.29825%	-87.86346%	-92.81418%	-89.14813%	-79.98656%	-82.26257%	-85.03361%

Volusia	WGHTD AVE	-25.02921%	-86.32572%	-64.21510%	-85.33928%	-89.13956%	-88.24555%	-79.67049%	-80.89710%	-82.85748%
Wakulla	WGHTD AVE	-18.10526%	-73.89120%	143.95604%	-70.09247%	-73.08391%	-64.29166%	-63.66831%	-65.51841%	-68.15279%
Walton	WGHTD AVE	19.31180%	-55.34625%	204.07039%	-42.82134%	-44.33554%	-30.24304%	-37.72252%	-39.50704%	-41.97542%
Washington	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
STATEWIDE	WGHTD AVE	12.60862%	-72.16073%	-2.29525%	-64.90470%	-68.88660%	-64.43920%	-59.99129%	-61.28764%	-63.12186%

Form A-7: Percentage Change In Output Ranges (V2.5 to V2.6)

LOSS COSTS PER $1,000

Personal Residential -- Owners -- FRAME

COUNTY	LOSS COSTS	$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE APPURTENANT STRUCTURE	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-1.86489%	-3.65436%	-69.94907%	-6.30652%	-19.71340%	-32.77403%	-37.47334%	-32.77403%	-35.28265%	-41.89495%
Baker	WGHTD AVE	6.00873%	8.21674%	-65.77310%	11.00686%	-10.58354%	-23.58956%	-26.08420%	-23.58956%	-23.69654%	-30.18564%
Bay	WGHTD AVE	72.35143%	97.37394%	-50.16457%	117.08310%	54.68650%	52.58468%	64.32528%	52.58468%	64.22419%	79.56325%
Bradford	WGHTD AVE	-13.25836%	-16.25826%	-73.19674%	-19.16569%	-29.79977%	-42.95458%	-47.79225%	-42.95458%	-45.82651%	-52.13195%
Brevard	WGHTD AVE	-12.90664%	-16.10988%	-72.62827%	-14.40661%	-20.51738%	-22.81286%	-26.16902%	-22.81286%	-24.67511%	-32.10567%
Broward	WGHTD AVE	-10.22918%	-9.07928%	-75.00988%	-2.60711%	-15.79787%	-16.63182%	-17.59755%	-16.63182%	-17.17212%	-18.41740%
Calhoun	WGHTD AVE	17.78429%	10.82241%	-63.42863%	3.72660%	-5.15845%	-21.82330%	-30.36118%	-21.82330%	-27.20644%	-39.09112%
Charlotte	WGHTD AVE	-6.29358%	7.45902%	-71.07693%	15.92294%	-12.18358%	-13.32925%	-13.77302%	-13.32925%	-13.40247%	-12.97978%
Citrus	WGHTD AVE	-10.95299%	-11.37114%	-72.82473%	-10.69471%	-19.14719%	-22.25982%	-26.58042%	-22.25982%	-24.69733%	-34.04859%
Clay	WGHTD AVE	5.52925%	7.85918%	-66.51826%	11.21581%	-11.00161%	-22.70816%	-24.38050%	-22.70816%	-22.31279%	-26.42204%
Collier	WGHTD AVE	-7.53202%	-5.96944%	-72.05265%	-2.18597%	-15.10475%	-16.71159%	-18.92493%	-16.71159%	-17.89494%	-22.45463%
Columbia	WGHTD AVE	-11.67028%	-15.56722%	-73.07903%	-20.54647%	-29.06755%	-42.85969%	-48.54973%	-42.85969%	-46.53040%	-53.46915%
De Soto	WGHTD AVE	0.25434%	18.97667%	-67.10833%	35.31726%	-5.29480%	-6.38749%	-6.68637%	-6.38749%	-6.26982%	-6.10471%
Dixie	WGHTD AVE	7.35915%	17.56838%	-68.74558%	23.00824%	-7.91895%	-15.37671%	-11.27717%	-15.37671%	-10.94957%	-2.98073%
Duval	WGHTD AVE	-5.81019%	-6.62110%	-70.96377%	-7.71405%	-22.18129%	-33.53131%	-36.06190%	-33.53131%	-34.45144%	-37.68477%
Escambia	WGHTD AVE	126.52601%	189.57214%	-37.69130%	239.59177%	117.50171%	131.53534%	168.39136%	131.53534%	164.11147%	210.77354%
Flagler	WGHTD AVE	26.24293%	59.07906%	-58.18839%	86.35698%	21.61403%	22.02463%	24.88439%	22.02463%	24.31114%	32.14142%
Franklin	WGHTD AVE	-12.31730%	-14.46104%	-69.16122%	-22.11256%	-25.92656%	-32.46976%	-35.41293%	-32.46976%	-34.41967%	-37.27299%
Gadsen	WGHTD AVE	-12.98438%	-18.26438%	-73.77354%	-22.58450%	-30.85218%	-45.36204%	-51.37890%	-45.36204%	-49.39252%	-56.25029%
Gilchrist	WGHTD AVE	-11.32602%	-15.17945%	-74.07614%	-20.33731%	-29.02534%	-40.68445%	-45.33598%	-40.68445%	-43.61616%	-48.46766%
Glades	WGHTD AVE	-30.37513%	-48.44844%	-79.48213%	-52.63312%	-39.71073%	-42.99413%	-48.84160%	-42.99413%	-46.54397%	-58.94043%
Gulf	WGHTD AVE	28.81634%	32.77534%	-63.66839%	37.81682%	9.17929%	1.20961%	3.17015%	1.20961%	4.05382%	7.72163%
Hamilton	WGHTD AVE	-19.16980%	-22.50205%	-75.04435%	-25.09317%	-34.67927%	-47.53483%	-51.93408%	-47.53483%	-50.24326%	-55.58204%
Hardee	WGHTD AVE	-6.50717%	-3.37307%	-70.30287%	1.29896%	-13.78638%	-15.94109%	-18.96321%	-15.94109%	-17.53011%	-24.92015%
Hendry	WGHTD AVE	-1.03221%	10.98262%	-68.51957%	20.87530%	-7.53698%	-9.05975%	-10.63245%	-9.05975%	-9.77417%	-12.75718%
Hernando	WGHTD AVE	-1.86411%	8.72976%	-69.20517%	16.84370%	-9.16184%	-11.61366%	-14.26990%	-11.61366%	-12.96457%	-18.10980%
Highlands	WGHTD AVE	-12.66933%	-15.38961%	-72.69977%	-15.08610%	-20.65948%	-23.50508%	-27.79128%	-23.50508%	-25.91191%	-36.06910%
Hillsborough	WGHTD AVE	-8.40743%	4.57116%	-70.93713%	14.17707%	-14.33783%	-15.80736%	-16.88620%	-15.80736%	-16.23777%	-17.69603%

Holmes	WGHTD AVE	24.03994%	25.07881%	-61.99032%	28.70185%	3.06734%	-9.98882%	-12.42274%	-9.98882%	-10.32043%	-13.30668%
Indian River	WGHTD AVE	-7.63499%	-13.60163%	-71.80957%	-12.76779%	-15.80696%	-17.97131%	-21.56132%	-17.97131%	-20.02431%	-27.69571%
Jackson	WGHTD AVE	19.08038%	16.26270%	-62.66419%	15.01940%	-2.40477%	-18.73974%	-24.75667%	-18.73974%	-21.96232%	-30.88675%
Jefferson	WGHTD AVE	-17.33914%	-18.32358%	-74.54371%	-17.59495%	-32.24953%	-44.05352%	-46.20981%	-44.05352%	-44.90883%	-46.58590%
Lafayette	WGHTD AVE	-10.24517%	-9.44335%	-73.18975%	-7.84621%	-26.23698%	-37.55522%	-39.03112%	-37.55522%	-37.78012%	-37.86835%
Lake	WGHTD AVE	-2.45949%	-2.60181%	-68.95005%	-0.53207%	-10.61636%	-13.46549%	-17.67897%	-13.46549%	-15.73195%	-26.31767%
Lee	WGHTD AVE	-6.92473%	-4.85356%	-73.19745%	1.61667%	-14.61298%	-16.04750%	-17.65470%	-16.04750%	-16.84917%	-19.79984%
Leon	WGHTD AVE	-14.55760%	-19.44096%	-74.11565%	-22.93300%	-31.70016%	-44.97278%	-49.90907%	-44.97278%	-48.10706%	-53.78421%
Levy	WGHTD AVE	-6.27754%	-11.52800%	-73.31147%	-15.33991%	-24.30325%	-34.70007%	-38.22520%	-34.70007%	-36.63179%	-40.38606%
Liberty	WGHTD AVE	-11.76413%	-22.11826%	-74.10803%	-31.67433%	-32.31038%	-47.94320%	-56.11064%	-47.94320%	-53.90848%	-62.82377%
Madison	WGHTD AVE	-18.89453%	-20.59418%	-75.09089%	-21.77616%	-34.05384%	-45.99861%	-49.41462%	-45.99861%	-47.87671%	-51.66470%
Manatee	WGHTD AVE	-8.82064%	8.06843%	-71.83433%	18.28221%	-14.08378%	-14.91758%	-14.36354%	-14.91758%	-14.38758%	-11.52176%
Marion	WGHTD AVE	-6.87416%	-12.70665%	-71.34814%	-14.66839%	-16.02836%	-19.57227%	-25.03510%	-19.57227%	-22.63819%	-35.83533%
Martin	WGHTD AVE	-9.40487%	-23.58614%	-72.58856%	-19.17750%	-17.59286%	-19.41005%	-23.43673%	-19.41005%	-21.80946%	-30.27192%
Miami-Dade	WGHTD AVE	10.46316%	28.93307%	-69.50096%	41.72980%	7.05016%	7.46179%	9.50325%	7.46179%	8.85547%	13.96053%
Monroe	WGHTD AVE	52.01852%	118.43248%	-62.09369%	138.30687%	52.70098%	56.56359%	65.76960%	56.56359%	62.62472%	83.54690%
Nassau	WGHTD AVE	-18.23528%	-22.92623%	-75.12717%	-27.56265%	-34.05465%	-45.60599%	-49.73442%	-45.60599%	-48.16225%	-53.05353%
Okaloosa	WGHTD AVE	108.64304%	160.61020%	-42.07509%	204.90553%	98.03393%	108.70848%	139.46078%	108.70848%	136.11381%	175.27567%
Okeechobee	WGHTD AVE	-36.68357%	-57.93010%	-81.50198%	-62.84581%	-46.59187%	-50.36520%	-56.85426%	-50.36520%	-54.36699%	-67.48440%
Orange	WGHTD AVE	-9.05288%	-13.37168%	-71.23583%	-14.09479%	-17.20366%	-20.06129%	-24.52212%	-20.06129%	-22.51691%	-33.87246%
Osceola	WGHTD AVE	-7.60162%	-14.53447%	-70.81363%	-14.97080%	-16.18828%	-19.07187%	-23.81752%	-19.07187%	-21.68414%	-34.03195%
Palm Beach	WGHTD AVE	-12.68602%	-17.30645%	-74.71946%	-10.00211%	-19.12247%	-20.32112%	-22.29202%	-20.32112%	-21.46829%	-24.95820%
Pasco	WGHTD AVE	-8.51437%	-4.21267%	-71.52933%	0.30337%	-15.92549%	-18.23303%	-21.23599%	-18.23303%	-19.82721%	-26.21535%
Pinellas	WGHTD AVE	-2.56762%	25.76971%	-69.31011%	41.49025%	-6.95921%	-7.45574%	-5.73034%	-7.45574%	-6.15619%	0.39712%
Polk	WGHTD AVE	-6.31491%	-2.23688%	-69.71420%	2.83518%	-13.43629%	-15.67034%	-18.66608%	-15.67034%	-17.23168%	-24.58701%
Putnam	WGHTD AVE	13.89136%	15.36798%	-64.01530%	17.55908%	-3.81639%	-14.66448%	-17.01253%	-14.66448%	-14.54026%	-20.63007%
St. Johns	WGHTD AVE	13.64572%	22.37524%	-65.61881%	30.62581%	-1.31533%	-7.75337%	-3.64977%	-7.75337%	-2.90367%	1.81597%
St. Lucie	WGHTD AVE	-8.89835%	-22.71736%	-72.74332%	-19.08904%	-17.24447%	-19.16157%	-23.35827%	-19.16157%	-21.63520%	-30.67459%
Santa Rosa	WGHTD AVE	102.79776%	144.85102%	-41.64007%	179.35301%	90.08448%	96.74721%	119.85456%	96.74721%	118.01458%	144.94550%
Sarasota	WGHTD AVE	-7.43210%	9.74314%	-70.79153%	20.70189%	-12.67759%	-13.54780%	-13.36749%	-13.54780%	-13.20913%	-11.49034%
Seminole	WGHTD AVE	-6.12285%	-7.93180%	-69.74513%	-6.89774%	-14.16861%	-17.05331%	-21.31408%	-17.05331%	-19.32316%	-30.59408%
Sumter	WGHTD AVE	-35.59857%	-56.72652%	-81.22115%	-62.92896%	-45.62302%	-49.61125%	-56.27985%	-49.61125%	-53.68761%	-67.54519%
Suwanee	WGHTD AVE	-20.39756%	-25.44770%	-75.96136%	-30.28574%	-36.70869%	-49.73000%	-54.88243%	-49.73000%	-53.17395%	-58.86175%
Taylor	WGHTD AVE	-3.56576%	3.31448%	-71.10301%	12.57796%	-17.49541%	-24.92398%	-20.64511%	-24.92398%	-20.36874%	-12.39019%
Union	WGHTD AVE	2.00616%	3.29698%	-67.23219%	3.83003%	-14.63950%	-27.24520%	-30.80066%	-27.24520%	-28.41398%	-35.33966%

Volusia	WGHTD AVE	3.86272%	10.24442%	-66.28442%	17.92206%	-3.02502%	-4.61227%	-6.59839%	-4.61227%	-5.44609%	-11.01606%
Wakulla	WGHTD AVE	-20.16108%	-26.23184%	-76.64986%	-30.13248%	-36.54980%	-47.40955%	-51.23471%	-47.40955%	-49.86133%	-53.54279%
Walton	WGHTD AVE	69.92235%	101.77689%	-51.44074%	125.59490%	53.82332%	52.68525%	67.58945%	52.68525%	66.62381%	87.91248%
Washington	WGHTD AVE	8.72664%	-4.32114%	-66.82497%	-12.87610%	-14.25523%	-28.00535%	-35.80007%	-28.00535%	-33.32519%	-42.38209%
STATEWIDE	WGHTD AVE	1.05620%	7.87141%	-68.54192%	16.41378%	-7.30559%	-9.82248%	-10.62278%	-9.82248%	-9.96552%	-10.97478%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL -Owners -- MASONRY

COUNTY	LOSS COSTS	0% DEDUCTIBLE STRUCTURE	0% DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE APPURTENANT STRUCTURE	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-0.44503%	-2.04632%	-69.40920%	-4.02025%	-18.99458%	-33.05655%	-37.58410%	-33.05655%	-35.46507%	-41.48871%
Baker	WGHTD AVE	6.21966%	8.12154%	-65.69503%	10.69282%	-11.01077%	-25.08211%	-27.61024%	-25.08211%	-25.31752%	-31.32159%
Bay	WGHTD AVE	68.52047%	88.63635%	-50.28052%	107.97174%	48.51081%	43.88902%	54.20042%	43.88902%	54.72036%	67.25784%
Bradford	WGHTD AVE	-12.13705%	-15.09057%	-73.11353%	-17.71527%	-29.34906%	-43.28105%	-47.90278%	-43.28105%	-46.04939%	-51.48003%
Brevard	WGHTD AVE	-12.50519%	-14.90653%	-72.84898%	-13.19607%	-21.13162%	-23.88049%	-27.58137%	-23.88049%	-25.84913%	-34.33561%
Broward	WGHTD AVE	-17.40534%	-18.12982%	-75.46576%	-13.83303%	-24.86586%	-26.75382%	-28.87641%	-26.75382%	-27.97286%	-31.43099%
Calhoun	WGHTD AVE	18.90686%	12.23875%	-63.44588%	5.32727%	-5.05542%	-22.84597%	-31.23849%	-22.84597%	-28.25740%	-39.13962%
Charlotte	WGHTD AVE	-5.62781%	5.46976%	-70.66843%	15.27866%	-13.14421%	-14.95386%	-16.50884%	-14.95386%	-15.54939%	-18.46459%
Citrus	WGHTD AVE	-10.05519%	-11.15964%	-73.08541%	-10.41488%	-19.50807%	-23.15162%	-27.84156%	-23.15162%	-25.70462%	-36.35385%
Clay	WGHTD AVE	7.14626%	9.27048%	-65.92096%	12.32668%	-10.30499%	-23.06995%	-25.01538%	-23.06995%	-22.90421%	-27.28068%
Collier	WGHTD AVE	-7.60791%	-8.14247%	-72.35982%	-4.36749%	-16.77654%	-18.94899%	-21.96807%	-18.94899%	-20.51188%	-27.30083%
Columbia	WGHTD AVE	-10.30263%	-14.41847%	-73.13598%	-19.40852%	-28.58495%	-43.23115%	-48.77790%	-43.23115%	-46.87899%	-52.99007%
De Soto	WGHTD AVE	0.49810%	15.45693%	-66.97160%	32.36100%	-6.35286%	-7.92061%	-9.06713%	-7.92061%	-8.15852%	-10.91364%
Dixie	WGHTD AVE	2.62367%	7.09175%	-69.78140%	11.06722%	-14.51397%	-24.80875%	-23.58575%	-24.80875%	-22.65375%	-19.16649%
Duval	WGHTD AVE	-2.07919%	-2.31008%	-69.68923%	-2.16283%	-19.28449%	-31.67046%	-33.94801%	-31.67046%	-32.28483%	-35.38491%
Escambia	WGHTD AVE	125.79705%	185.37112%	-36.57093%	233.88000%	114.51105%	128.20089%	168.05077%	128.20089%	164.10786%	212.59930%
Flagler	WGHTD AVE	30.88327%	58.58035%	-56.24265%	92.34793%	24.56845%	24.74724%	26.61104%	24.74724%	26.78991%	30.35541%
Franklin	WGHTD AVE	-3.35882%	-7.06275%	-70.97223%	-7.82075%	-19.00021%	-26.03431%	-28.45544%	-26.03431%	-27.50339%	-29.73699%
Gadsen	WGHTD AVE	-12.50353%	-17.90799%	-73.86690%	-21.68529%	-31.00620%	-46.28716%	-52.09169%	-46.28716%	-50.27846%	-56.18150%
Gilchrist	WGHTD AVE	-10.12448%	-14.17542%	-74.04281%	-19.12728%	-28.83697%	-41.38454%	-46.00858%	-41.38454%	-44.34261%	-48.76600%
Glades	WGHTD AVE	-27.86631%	-43.70192%	-79.49554%	-49.29930%	-38.21275%	-41.99490%	-47.97783%	-41.99490%	-45.55104%	-58.50784%
Gulf	WGHTD AVE	25.85855%	27.46454%	-63.56300%	29.31020%	4.51264%	-5.51764%	-4.85148%	-5.51764%	-3.67057%	-1.78645%
Hamilton	WGHTD AVE	-18.37636%	-22.00334%	-74.96347%	-23.83809%	-34.49472%	-48.09179%	-52.46686%	-48.09179%	-50.86826%	-55.68318%
Hardee	WGHTD AVE	-5.13874%	-2.08208%	-69.95649%	2.91757%	-13.50650%	-16.12706%	-19.62507%	-16.12706%	-17.86243%	-26.96930%
Hendry	WGHTD AVE	-2.96437%	5.22974%	-69.24552%	14.83268%	-10.90749%	-13.03272%	-15.51709%	-13.03272%	-14.18425%	-19.83669%
Hernando	WGHTD AVE	-2.97397%	5.72328%	-69.94985%	14.64349%	-11.47202%	-14.41254%	-17.51055%	-14.41254%	-15.91883%	-22.57440%
Highlands	WGHTD AVE	-9.75736%	-9.98820%	-71.95666%	-8.11688%	-18.64269%	-21.85483%	-26.18434%	-21.85483%	-24.14636%	-34.88638%
Hillsborough	WGHTD AVE	-9.07942%	-0.02915%	-71.33267%	9.01688%	-16.49289%	-18.60547%	-20.69591%	-18.60547%	-19.52251%	-24.08044%

Holmes	WGHTD AVE	22.61169%	22.88755%	-62.94947%	25.85537%	0.51761%	-14.04379%	-16.98679%	-14.04379%	-14.85153%	-18.11912%
Indian River	WGHTD AVE	-10.03426%	-17.25317%	-72.23080%	-16.73243%	-19.48127%	-22.28059%	-26.55426%	-22.28059%	-24.69059%	-33.95028%
Jackson	WGHTD AVE	17.18632%	12.89891%	-63.75444%	10.16930%	-5.43641%	-23.18469%	-29.79036%	-23.18469%	-27.11476%	-35.72840%
Jefferson	WGHTD AVE	-16.74489%	-17.99827%	-74.45715%	-17.34318%	-32.19571%	-44.82216%	-46.87780%	-44.82216%	-45.61280%	-46.98913%
Lafayette	WGHTD AVE	-10.01464%	-9.92665%	-73.21804%	-8.31119%	-26.80792%	-39.04258%	-40.64761%	-39.04258%	-39.41785%	-39.53314%
Lake	WGHTD AVE	-4.20935%	-6.42406%	-70.19790%	-5.43013%	-13.72403%	-17.14758%	-21.88514%	-17.14758%	-19.65472%	-31.53956%
Lee	WGHTD AVE	-11.52690%	-11.68835%	-73.44783%	-9.16832%	-20.42797%	-22.85001%	-26.13014%	-22.85001%	-24.57754%	-31.97359%
Leon	WGHTD AVE	-11.80372%	-16.01050%	-73.29831%	-18.33044%	-29.52763%	-43.50061%	-47.86799%	-43.50061%	-46.15837%	-50.73253%
Levy	WGHTD AVE	-11.73416%	-18.33802%	-74.11838%	-24.84255%	-30.37729%	-42.39523%	-47.50073%	-42.39523%	-45.76976%	-51.15152%
Liberty	WGHTD AVE	-10.19987%	-20.07835%	-73.92846%	-29.26205%	-31.53605%	-48.04097%	-56.03420%	-48.04097%	-53.98123%	-61.94072%
Madison	WGHTD AVE	-17.81657%	-19.62324%	-74.82887%	-20.14856%	-33.57803%	-46.32006%	-49.57935%	-46.32006%	-48.10984%	-51.33366%
Manatee	WGHTD AVE	-11.37530%	-0.52754%	-72.44511%	9.30456%	-18.39329%	-19.95871%	-20.81390%	-19.95871%	-20.17206%	-21.26662%
Marion	WGHTD AVE	-3.61871%	-6.42818%	-70.52307%	-6.75524%	-13.54252%	-17.50988%	-22.97346%	-17.50988%	-20.42863%	-34.09114%
Martin	WGHTD AVE	-15.08983%	-27.48936%	-72.72651%	-25.86361%	-24.24627%	-27.14555%	-31.93355%	-27.14555%	-29.97283%	-40.15540%
Miami-Dade	WGHTD AVE	-1.12464%	11.84325%	-71.27421%	21.96768%	-7.58288%	-8.40924%	-8.10332%	-8.40924%	-8.03936%	-6.00968%
Monroe	WGHTD AVE	75.32891%	154.25369%	-58.47374%	191.96073%	76.68803%	82.63236%	95.95356%	82.63236%	91.37836%	122.26796%
Nassau	WGHTD AVE	-18.93235%	-24.06745%	-75.37067%	-29.44080%	-35.45935%	-48.17072%	-52.68679%	-48.17072%	-51.13645%	-56.00736%
Okaloosa	WGHTD AVE	98.97743%	141.18705%	-42.46478%	181.46543%	85.15949%	91.91891%	118.56873%	91.91891%	116.61654%	147.84843%
Okeechobee	WGHTD AVE	-33.45834%	-52.08908%	-81.30074%	-58.89454%	-44.26266%	-48.57589%	-55.13517%	-48.57589%	-52.55788%	-66.14947%
Orange	WGHTD AVE	-6.14399%	-8.22472%	-70.54304%	-7.71928%	-15.15637%	-18.38621%	-22.94773%	-18.38621%	-20.74637%	-32.89104%
Osceola	WGHTD AVE	-6.56385%	-11.32107%	-70.83777%	-10.73157%	-15.96957%	-19.19953%	-23.94906%	-19.19953%	-21.68663%	-34.36425%
Palm Beach	WGHTD AVE	-19.58812%	-22.99849%	-76.00888%	-19.43086%	-27.47818%	-29.66334%	-32.39285%	-29.66334%	-31.24475%	-36.07910%
Pasco	WGHTD AVE	-9.00558%	-5.85839%	-72.05159%	-1.23674%	-17.67747%	-20.56960%	-24.12993%	-20.56960%	-22.38737%	-30.48031%
Pinellas	WGHTD AVE	-5.48830%	13.30792%	-70.34580%	28.65463%	-11.99482%	-13.39996%	-13.58934%	-13.39996%	-13.12593%	-12.18445%
Polk	WGHTD AVE	-5.32301%	-2.24831%	-69.70002%	3.02671%	-13.62149%	-16.35767%	-19.90398%	-16.35767%	-18.11673%	-27.35676%
Putnam	WGHTD AVE	13.17702%	14.60697%	-64.18663%	16.71781%	-5.29372%	-17.34620%	-20.01733%	-17.34620%	-17.54103%	-23.69426%
St. Johns	WGHTD AVE	15.81551%	25.55973%	-64.68773%	36.53866%	0.35354%	-6.37148%	-1.09934%	-6.37148%	-0.36356%	5.36810%
St. Lucie	WGHTD AVE	-14.37527%	-24.88983%	-72.75846%	-23.93183%	-23.46785%	-26.46392%	-31.25980%	-26.46392%	-29.25141%	-39.78671%
Santa Rosa	WGHTD AVE	99.13209%	136.40751%	-42.23216%	171.87569%	84.00092%	88.61567%	110.15702%	88.61567%	109.06248%	132.10416%
Sarasota	WGHTD AVE	-8.85795%	2.94484%	-71.50359%	13.41110%	-15.88908%	-17.41630%	-18.42422%	-17.41630%	-17.68196%	-19.34261%
Seminole	WGHTD AVE	-4.53997%	-5.36343%	-69.57563%	-3.42313%	-13.54385%	-16.85594%	-21.31168%	-16.85594%	-19.10235%	-31.26838%
Sumter	WGHTD AVE	-25.91709%	-41.61750%	-78.85544%	-47.94305%	-36.71975%	-41.14016%	-47.66081%	-41.14016%	-44.99454%	-59.24614%
Suwanee	WGHTD AVE	-19.48980%	-24.58467%	-75.95654%	-28.90804%	-36.41228%	-50.20690%	-55.13360%	-50.20690%	-53.57774%	-58.46919%
Taylor	WGHTD AVE	-4.85321%	0.53660%	-71.23198%	9.71007%	-19.47409%	-27.98749%	-24.03102%	-27.98749%	-23.56745%	-16.61050%
Union	WGHTD AVE	2.25012%	3.29536%	-67.22743%	4.35327%	-15.06748%	-28.65617%	-32.16629%	-28.65617%	-29.91535%	-36.13122%

Volusia	WGHTD AVE	3.33451%	7.17225%	-66.60504%	14.95833%	-4.88503%	-7.09778%	-10.02654%	-7.09778%	-8.34669%	-16.83750%
Wakulla	WGHTD AVE	-19.25364%	-25.34843%	-76.38907%	-29.92969%	-36.50012%	-48.19847%	-52.11150%	-48.19847%	-50.74621%	-54.17269%
Walton	WGHTD AVE	63.26175%	84.95473%	-52.98382%	100.67867%	43.51601%	38.94423%	50.86439%	38.94423%	50.78631%	66.98712%
Washington	WGHTD AVE	11.46148%	-0.81151%	-66.44292%	-9.72859%	-12.97410%	-27.93138%	-35.73451%	-27.93138%	-33.31590%	-41.88507%
STATEWIDE	WGHTD AVE	-8.86702%	-6.77122%	-72.36438%	-0.97272%	-17.12665%	-19.32044%	-21.45763%	-19.32044%	-20.39912%	-24.36992%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - MOBILE HOMES

COUNTY	LOSS COSTS	$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE APPURTENANT STRUCTURE	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-42.70952%	-51.15840%	-71.44882%	-54.10928%	-50.11707%	-51.75085%	-54.74667%	-50.11707%	-51.75085%	-54.74667%
Baker	WGHTD AVE	-22.46073%	-20.41758%	-66.44447%	-24.13758%	-30.67130%	-31.87073%	-32.30260%	-30.67130%	-31.87073%	-32.30260%
Bay	WGHTD AVE	11.89553%	16.24175%	-53.57076%	14.10735%	6.49725%	5.86147%	6.54082%	6.49725%	5.86147%	6.54082%
Bradford	WGHTD AVE	-47.02382%	-53.72898%	-73.62845%	-57.32159%	-54.32346%	-55.94545%	-58.80396%	-54.32346%	-55.94545%	-58.80396%
Brevard	WGHTD AVE	-18.03835%	-21.36412%	-72.09247%	-17.90640%	-20.76383%	-20.97615%	-21.32866%	-20.76383%	-20.97615%	-21.32866%
Broward	WGHTD AVE	-15.80985%	-16.37633%	-74.21712%	-11.18418%	-17.32790%	-17.32054%	-17.02249%	-17.32790%	-17.32054%	-17.02249%
Calhoun	WGHTD AVE	-25.87066%	-38.08293%	-63.40515%	-41.01116%	-35.58237%	-37.66657%	-41.56668%	-35.58237%	-37.66657%	-41.56668%
Charlotte	WGHTD AVE	-7.43793%	-0.25729%	-70.79767%	3.10169%	-7.56378%	-7.10274%	-5.26722%	-7.56378%	-7.10274%	-5.26722%
Citrus	WGHTD AVE	-25.97884%	-34.31688%	-73.18163%	-33.12235%	-30.45933%	-31.41167%	-33.84691%	-30.45933%	-31.41167%	-33.84691%
Clay	WGHTD AVE	-31.49024%	-37.98514%	-68.40094%	-41.00400%	-39.64869%	-41.22423%	-43.64079%	-39.64869%	-41.22423%	-43.64079%
Collier	WGHTD AVE	-5.03375%	-0.13047%	-70.51728%	2.87151%	-5.34159%	-4.93947%	-3.47640%	-5.34159%	-4.93947%	-3.47640%
Columbia	WGHTD AVE	-37.17557%	-40.69152%	-69.60151%	-44.66029%	-44.52600%	-46.09817%	-48.46837%	-44.52600%	-46.09817%	-48.46837%
De Soto	WGHTD AVE	-0.40319%	16.99962%	-67.13524%	21.32354%	0.94618%	2.15646%	6.71001%	0.94618%	2.15646%	6.71001%
Dixie	WGHTD AVE	-34.19184%	-34.57803%	-69.72781%	-37.03042%	-39.71159%	-40.78251%	-41.91955%	-39.71159%	-40.78251%	-41.91955%
Duval	WGHTD AVE	-45.44296%	-53.09946%	-73.30641%	-55.53125%	-52.62535%	-54.08030%	-56.53648%	-52.62535%	-54.08030%	-56.53648%
Escambia	WGHTD AVE	48.16893%	62.87361%	-44.54534%	61.63717%	46.05105%	46.51958%	50.49808%	46.05105%	46.51958%	50.49808%
Flagler	WGHTD AVE	5.39081%	18.18232%	-65.02586%	23.60198%	6.02501%	7.15548%	11.20641%	6.02501%	7.15548%	11.20641%
Franklin	WGHTD AVE	-37.27009%	-43.07265%	-70.49542%	-42.57989%	-41.62189%	-42.45722%	-43.78887%	-41.62189%	-42.45722%	-43.78887%
Gadsen	WGHTD AVE	-49.73350%	-58.87735%	-73.60641%	-62.52653%	-57.60189%	-59.47417%	-63.13465%	-57.60189%	-59.47417%	-63.13465%
Gilchrist	WGHTD AVE	-48.47344%	-56.05530%	-74.00050%	-58.44613%	-54.68746%	-56.07895%	-58.65058%	-54.68746%	-56.07895%	-58.65058%
Glades	WGHTD AVE	-44.93960%	-57.30900%	-79.49531%	-55.47051%	-49.92392%	-50.98607%	-53.80468%	-49.92392%	-50.98607%	-53.80468%
Gulf	WGHTD AVE	-29.24549%	-36.23840%	-66.26043%	-37.71936%	-35.94065%	-37.25373%	-39.19033%	-35.94065%	-37.25373%	-39.19033%
Hamilton	WGHTD AVE	-55.80378%	-64.26646%	-76.65291%	-67.11063%	-63.12041%	-64.77748%	-67.92251%	-63.12041%	-64.77748%	-67.92251%
Hardee	WGHTD AVE	-20.31401%	-23.49838%	-72.21632%	-21.24636%	-23.19245%	-23.54412%	-24.20718%	-23.19245%	-23.54412%	-24.20718%
Hendry	WGHTD AVE	-4.86787%	1.55207%	-69.76953%	5.69050%	-5.26072%	-4.86387%	-3.24941%	-5.26072%	-4.86387%	-3.24941%
Hernando	WGHTD AVE	-15.41486%	-16.43904%	-70.11143%	-14.59371%	-18.31273%	-18.66099%	-19.16317%	-18.31273%	-18.66099%	-19.16317%
Highlands	WGHTD AVE	-23.12903%	-28.43020%	-72.97670%	-25.81179%	-26.69867%	-27.27518%	-28.57278%	-26.69867%	-27.27518%	-28.57278%
Hillsborough	WGHTD AVE	-16.44385%	-11.93615%	-71.96111%	-9.03818%	-17.46632%	-17.26395%	-16.11894%	-17.46632%	-17.26395%	-16.11894%

Holmes	WGHTD AVE	-14.05363%	-14.75532%	-61.16136%	-18.12833%	-20.97655%	-22.27382%	-23.55085%	-20.97655%	-22.27382%	-23.55085%
Indian River	WGHTD AVE	-3.12777%	-1.78773%	-68.04199%	2.36619%	-4.69935%	-4.41663%	-3.32753%	-4.69935%	-4.41663%	-3.32753%
Jackson	WGHTD AVE	-25.26146%	-35.94695%	-63.61895%	-38.91090%	-34.87142%	-36.89041%	-40.46814%	-34.87142%	-36.89041%	-40.46814%
Jefferson	WGHTD AVE	-47.32396%	-47.06978%	-74.63402%	-51.17076%	-53.38515%	-54.66116%	-56.22997%	-53.38515%	-54.66116%	-56.22997%
Lafayette	WGHTD AVE	-43.87668%	-43.06896%	-73.15832%	-46.79452%	-49.39007%	-50.58469%	-52.01549%	-49.39007%	-50.58469%	-52.01549%
Lake	WGHTD AVE	-14.01153%	-18.07554%	-69.83363%	-15.37879%	-17.52613%	-18.01643%	-19.09565%	-17.52613%	-18.01643%	-19.09565%
Lee	WGHTD AVE	-13.46888%	-12.05344%	-72.22711%	-9.34230%	-14.83158%	-14.76425%	-14.24467%	-14.83158%	-14.76425%	-14.24467%
Leon	WGHTD AVE	-48.75702%	-59.86169%	-73.96023%	-62.33259%	-56.73961%	-58.43351%	-61.70142%	-56.73961%	-58.43351%	-61.70142%
Levy	WGHTD AVE	-48.94659%	-58.27968%	-74.26686%	-60.11442%	-55.26123%	-56.59272%	-59.15289%	-55.26123%	-56.59272%	-59.15289%
Liberty	WGHTD AVE	-52.59115%	-64.76792%	-73.76079%	-67.38886%	-60.54622%	-62.44844%	-66.39077%	-60.54622%	-62.44844%	-66.39077%
Madison	WGHTD AVE	-47.06352%	-50.44284%	-74.40628%	-54.16594%	-53.86512%	-55.30300%	-57.49161%	-53.86512%	-55.30300%	-57.49161%
Manatee	WGHTD AVE	-3.88902%	10.29046%	-70.13876%	13.71544%	-2.27199%	-1.22430%	2.49734%	-2.27199%	-1.22430%	2.49734%
Marion	WGHTD AVE	-20.53938%	-30.23458%	-71.28392%	-28.74556%	-25.50602%	-26.61522%	-29.66518%	-25.50602%	-26.61522%	-29.66518%
Martin	WGHTD AVE	-21.04022%	-29.22202%	-73.75432%	-23.86586%	-24.46746%	-24.96937%	-26.30252%	-24.46746%	-24.96937%	-26.30252%
Miami-Dade	WGHTD AVE	-14.93725%	-16.84753%	-74.04042%	-13.44855%	-16.79561%	-16.88402%	-16.93241%	-16.79561%	-16.88402%	-16.93241%
Monroe	WGHTD AVE	40.93039%	56.38553%	-61.15814%	69.12149%	44.23904%	45.66309%	50.09263%	44.23904%	45.66309%	50.09263%
Nassau	WGHTD AVE	-54.74304%	-64.86286%	-76.53340%	-67.43346%	-62.12914%	-63.77740%	-67.01267%	-62.12914%	-63.77740%	-67.01267%
Okaloosa	WGHTD AVE	27.00955%	41.30528%	-51.87068%	37.52216%	24.76660%	24.97743%	28.09081%	24.76660%	24.97743%	28.09081%
Okeechobee	WGHTD AVE	-50.93444%	-64.39981%	-81.19199%	-62.96365%	-56.27849%	-57.49841%	-60.72658%	-56.27849%	-57.49841%	-60.72658%
Orange	WGHTD AVE	-14.08736%	-17.04289%	-70.16032%	-13.30792%	-17.21202%	-17.50844%	-18.03852%	-17.21202%	-17.50844%	-18.03852%
Osceola	WGHTD AVE	-18.93531%	-25.67314%	-71.58774%	-22.69475%	-22.81126%	-23.37577%	-24.79201%	-22.81126%	-23.37577%	-24.79201%
Palm Beach	WGHTD AVE	-19.97853%	-22.49679%	-74.48174%	-17.62446%	-22.05899%	-22.21792%	-22.42233%	-22.05899%	-22.21792%	-22.42233%
Pasco	WGHTD AVE	-10.09826%	-5.33064%	-69.15300%	-2.39834%	-11.57228%	-11.35999%	-10.16610%	-11.57228%	-11.35999%	-10.16610%
Pinellas	WGHTD AVE	-8.85312%	1.57266%	-71.12877%	4.23561%	-8.39347%	-7.75947%	-5.34467%	-8.39347%	-7.75947%	-5.34467%
Polk	WGHTD AVE	-15.16759%	-15.04510%	-70.56011%	-12.09674%	-17.42130%	-17.51086%	-17.28434%	-17.42130%	-17.51086%	-17.28434%
Putnam	WGHTD AVE	-8.09164%	-4.14925%	-61.43506%	-6.36155%	-14.43983%	-15.12891%	-14.32575%	-14.43983%	-15.12891%	-14.32575%
St. Johns	WGHTD AVE	-7.36438%	3.89335%	-63.37363%	2.10484%	-11.47179%	-11.60884%	-9.25931%	-11.47179%	-11.60884%	-9.25931%
St. Lucie	WGHTD AVE	-0.22714%	-0.59661%	-68.45502%	6.96386%	-1.61665%	-1.33732%	-0.40352%	-1.61665%	-1.33732%	-0.40352%
Santa Rosa	WGHTD AVE	48.66136%	72.37533%	-44.13745%	72.99414%	48.15280%	48.91147%	54.17812%	48.15280%	48.91147%	54.17812%
Sarasota	WGHTD AVE	-5.15598%	7.12516%	-70.92664%	10.14294%	-3.93905%	-3.12158%	-0.19898%	-3.93905%	-3.12158%	-0.19898%
Seminole	WGHTD AVE	-12.64983%	-13.50620%	-69.51965%	-9.88138%	-15.38938%	-15.53306%	-15.52711%	-15.38938%	-15.53306%	-15.52711%
Sumter	WGHTD AVE	-35.96688%	-49.86171%	-75.77928%	-48.09997%	-41.60557%	-42.85308%	-46.22108%	-41.60557%	-42.85308%	-46.22108%
Suwanee	WGHTD AVE	-55.25397%	-62.95884%	-76.62141%	-66.47518%	-62.18390%	-63.81433%	-66.91928%	-62.18390%	-63.81433%	-66.91928%
Taylor	WGHTD AVE	-33.80940%	-27.87971%	-71.16110%	-30.65858%	-38.06430%	-38.68425%	-38.23501%	-38.06430%	-38.68425%	-38.23501%
Union	WGHTD AVE	-27.90161%	-29.61850%	-67.46696%	-32.91829%	-35.61638%	-36.95553%	-38.35374%	-35.61638%	-36.95553%	-38.35374%

Volusia	WGHTD AVE	0.51526%	8.42477%	-66.65162%	12.56594%	-0.01921%	0.73860%	3.49111%	-0.01921%	0.73860%	3.49111%
Wakulla	WGHTD AVE	-55.79041%	-62.31875%	-77.16987%	-64.89304%	-61.76280%	-63.12873%	-65.60002%	-61.76280%	-63.12873%	-65.60002%
Walton	WGHTD AVE	-2.43176%	-2.51928%	-58.36299%	-3.04080%	-8.45883%	-9.40265%	-9.82151%	-8.45883%	-9.40265%	-9.82151%
Washington	WGHTD AVE	-31.10027%	-42.52400%	-65.90677%	-43.79921%	-38.79574%	-40.40927%	-43.44598%	-38.79574%	-40.40927%	-43.44598%
STATEWIDE	WGHTD AVE	-14.17492%	-13.41555%	-70.76805%	-10.41975%	-16.36084%	-16.42066%	-16.05038%	-16.36084%	-16.42066%	-16.05038%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - Renters -- FRAME

COUNTY	LOSS COSTS	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-4.25613%	-6.60026%	-10.12275%	-9.85575%	-8.98665%	-10.44927%	-10.12275%	-9.49009%
Baker	WGHTD AVE	8.41801%	12.57924%	16.34074%	16.51248%	16.09611%	16.46110%	16.34074%	16.31022%
Bay	WGHTD AVE	101.15478%	121.65294%	161.64353%	164.97321%	163.55067%	158.95460%	161.64353%	165.23501%
Bradford	WGHTD AVE	-14.74031%	-16.44184%	-21.51587%	-21.26664%	-20.23307%	-21.69914%	-21.51587%	-20.82378%
Brevard	WGHTD AVE	-14.36254%	-11.64692%	-16.74992%	-16.77964%	-16.44280%	-16.68735%	-16.74992%	-16.74292%
Broward	WGHTD AVE	-5.49456%	-1.81789%	-1.98499%	-1.65042%	-1.23009%	-2.19896%	-1.98499%	-1.54015%
Calhoun	WGHTD AVE	9.34040%	2.08262%	-14.62472%	-14.69357%	-12.56719%	-14.47791%	-14.62472%	-14.51987%
Charlotte	WGHTD AVE	10.86569%	19.02268%	29.55830%	30.74195%	30.99839%	28.67801%	29.55830%	30.97435%
Citrus	WGHTD AVE	-11.84536%	-11.67809%	-14.21691%	-13.50408%	-12.68286%	-14.61278%	-14.21691%	-13.27103%
Clay	WGHTD AVE	9.28788%	13.09937%	19.82984%	20.58963%	19.60233%	19.25369%	19.82984%	20.32605%
Collier	WGHTD AVE	-3.59070%	-3.94356%	-1.64737%	-1.47019%	-1.21319%	-1.74397%	-1.64737%	-1.41135%
Columbia	WGHTD AVE	-24.96271%	-32.10602%	-42.84396%	-42.57934%	-41.06672%	-42.81556%	-42.84396%	-42.22580%
De Soto	WGHTD AVE	18.68919%	34.56085%	57.82215%	59.59914%	57.79991%	56.15784%	57.82215%	59.45042%
Dixie	WGHTD AVE	14.87887%	25.37105%	44.98561%	47.59259%	46.55732%	42.99786%	44.98561%	47.66968%
Duval	WGHTD AVE	1.89469%	3.42649%	5.44098%	6.16602%	6.42230%	4.93613%	5.44098%	6.23512%
Escambia	WGHTD AVE	211.35258%	270.96190%	387.32348%	394.76445%	389.47438%	380.59433%	387.32348%	395.22385%
Flagler	WGHTD AVE	68.53067%	105.77744%	153.47054%	155.77599%	152.18263%	150.71209%	153.47054%	155.43895%
Franklin	WGHTD AVE	-8.85578%	-2.99485%	-16.72792%	-16.92033%	-16.55352%	-16.49119%	-16.72792%	-16.90340%
Gadsen	WGHTD AVE	-16.07307%	-18.51668%	-29.77797%	-29.10698%	-27.42237%	-29.70987%	-29.77797%	-28.71968%
Gilchrist	WGHTD AVE	-12.54174%	-18.49089%	-22.47025%	-22.06801%	-20.97476%	-22.75421%	-22.47025%	-21.82391%
Glades	WGHTD AVE	-48.49426%	-52.89100%	-62.73538%	-63.09071%	-62.57379%	-62.42009%	-62.73538%	-63.04486%
Gulf	WGHTD AVE	20.95021%	19.02845%	22.88358%	23.78470%	24.60981%	22.45010%	22.88358%	24.12277%
Hamilton	WGHTD AVE	-17.52400%	-13.85736%	-21.68582%	-21.32614%	-20.75345%	-22.06818%	-21.68582%	-21.44364%
Hardee	WGHTD AVE	-2.70060%	4.04903%	3.30434%	3.67171%	3.82868%	3.08665%	3.30434%	3.71477%
Hendry	WGHTD AVE	8.80384%	21.95577%	26.14865%	26.97361%	26.85099%	25.47300%	26.14865%	27.13767%
Hernando	WGHTD AVE	9.31241%	18.23756%	28.72830%	30.34907%	30.02052%	27.60195%	28.72830%	30.50348%
Highlands	WGHTD AVE	-14.10554%	-12.50603%	-18.94213%	-18.89083%	-18.23046%	-18.91949%	-18.94213%	-18.73224%

Hillsborough	WGHTD AVE	3.32237%	11.74116%	21.29684%	22.29213%	22.16261%	20.48922%	21.29684%	22.44372%
Holmes	WGHTD AVE	25.71616%	20.03754%	31.62248%	32.73857%	32.69910%	31.07470%	31.62248%	32.91727%
Indian River	WGHTD AVE	-9.02793%	-4.56015%	-11.10373%	-11.15994%	-10.76695%	-11.02735%	-11.10373%	-11.11512%
Jackson	WGHTD AVE	14.49781%	12.76037%	3.45339%	3.75265%	5.22793%	3.40172%	3.45339%	4.18631%
Jefferson	WGHTD AVE	-17.83825%	-16.66736%	-12.12698%	-11.49050%	-11.60844%	-12.79082%	-12.12698%	-10.89715%
Lafayette	WGHTD AVE	-9.66667%	-7.84314%	-0.46296%	1.02564%	0.00000%	-1.29310%	-0.46296%	1.04712%
Lake	WGHTD AVE	-0.81799%	0.74297%	-2.97880%	-2.89548%	-2.36396%	-2.95406%	-2.97880%	-2.80780%
Lee	WGHTD AVE	-3.37317%	-1.64980%	1.51253%	1.88072%	2.19932%	1.23199%	1.51253%	2.00744%
Leon	WGHTD AVE	-11.41990%	-15.01989%	-18.91289%	-18.21969%	-17.27452%	-19.11641%	-18.91289%	-18.10893%
Levy	WGHTD AVE	-21.74059%	-35.56092%	-39.00531%	-39.09323%	-38.05694%	-38.88198%	-39.00531%	-38.97960%
Liberty	WGHTD AVE	-20.55247%	-27.80141%	-43.87802%	-43.71604%	-41.56289%	-43.81748%	-43.87802%	-43.25341%
Madison	WGHTD AVE	-18.02002%	-18.10224%	-18.35910%	-17.80032%	-17.39701%	-19.06280%	-18.35910%	-17.76030%
Manatee	WGHTD AVE	6.48133%	14.32841%	24.82214%	25.93329%	26.19663%	23.97509%	24.82214%	26.15384%
Marion	WGHTD AVE	-6.76742%	-6.84001%	-14.38222%	-14.01339%	-12.95061%	-14.50237%	-14.38222%	-13.84939%
Martin	WGHTD AVE	-27.96050%	-25.09473%	-32.54614%	-32.89857%	-32.86793%	-32.26159%	-32.54614%	-32.97118%
Miami-Dade	WGHTD AVE	33.02406%	38.37755%	45.52651%	46.62544%	47.60457%	44.79251%	45.52651%	46.94332%
Monroe	WGHTD AVE	157.60823%	173.09850%	225.04604%	231.08496%	235.91768%	221.08152%	225.04604%	232.72144%
Nassau	WGHTD AVE	-22.48079%	-27.67292%	-33.40420%	-33.41322%	-32.37144%	-33.57557%	-33.40420%	-33.19347%
Okaloosa	WGHTD AVE	162.39099%	203.74056%	275.68425%	280.57704%	277.30774%	271.55778%	275.68425%	280.83521%
Okeechobee	WGHTD AVE	-58.11129%	-62.76413%	-73.26198%	-73.65467%	-73.20420%	-72.87922%	-73.26198%	-73.65731%
Orange	WGHTD AVE	-12.61810%	-12.89423%	-21.15057%	-21.20712%	-20.30840%	-20.98845%	-21.15057%	-21.07809%
Osceola	WGHTD AVE	-4.43429%	-3.23192%	-10.38660%	-10.40022%	-9.50252%	-10.29732%	-10.38660%	-10.22782%
Palm Beach	WGHTD AVE	-13.02568%	-12.03927%	-12.23869%	-12.05922%	-11.65987%	-12.32836%	-12.23869%	-11.97943%
Pasco	WGHTD AVE	0.01762%	6.75583%	10.95092%	11.80530%	11.91908%	10.32376%	10.95092%	11.97912%
Pinellas	WGHTD AVE	19.89346%	35.63126%	51.08325%	52.82554%	52.66339%	49.76859%	51.08325%	53.08049%
Polk	WGHTD AVE	-1.85118%	3.93919%	4.56547%	4.86800%	4.92175%	4.33475%	4.56547%	4.92938%
Putnam	WGHTD AVE	21.83570%	26.38216%	33.17157%	33.20377%	32.48803%	32.97355%	33.17157%	33.15064%
St. Johns	WGHTD AVE	18.33272%	23.36302%	37.78910%	38.89726%	38.72037%	36.79312%	37.78910%	39.36276%
St. Lucie	WGHTD AVE	-19.54955%	-16.08051%	-23.42053%	-23.64396%	-23.36657%	-23.20905%	-23.42053%	-23.65124%
Santa Rosa	WGHTD AVE	157.80972%	205.47801%	253.98216%	257.40312%	254.77192%	250.89793%	253.98216%	257.57616%
Sarasota	WGHTD AVE	11.55755%	24.62431%	37.90148%	39.37425%	39.26854%	36.78336%	37.90148%	39.56713%
Seminole	WGHTD AVE	-10.58019%	-10.00032%	-17.77022%	-17.78528%	-16.96314%	-17.69775%	-17.77022%	-17.63948%
Sumter	WGHTD AVE	-52.57258%	-61.64502%	-70.89754%	-71.14243%	-70.33134%	-70.59639%	-70.89754%	-71.06657%
Suwanee	WGHTD AVE	-18.73837%	-22.49211%	-26.07227%	-25.47383%	-24.78650%	-26.27808%	-26.07227%	-25.04605%
Taylor	WGHTD AVE	4.73368%	11.65765%	36.65689%	38.43409%	36.22575%	34.55144%	36.65689%	38.52460%

Union	WGHTD AVE	-0.65330%	0.28459%	-0.41046%	0.01499%	0.29447%	-0.53631%	-0.41046%	-0.03454%
Volusia	WGHTD AVE	8.89284%	16.71094%	17.02334%	17.12338%	17.12402%	16.91856%	17.02334%	17.14219%
Wakulla	WGHTD AVE	-25.27241%	-31.06739%	-34.58752%	-34.18173%	-33.01775%	-34.67743%	-34.58752%	-33.97498%
Walton	WGHTD AVE	104.52792%	134.74626%	181.61049%	186.12862%	183.93911%	178.04914%	181.61049%	186.47330%
Washington	WGHTD AVE	-6.31294%	-18.26647%	-29.16752%	-29.48155%	-28.29653%	-28.76334%	-29.16752%	-29.37348%
STATEWIDE	WGHTD AVE	14.30226%	23.27710%	28.36500%	29.07772%	29.17356%	27.81191%	28.36500%	29.19709%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - Renters -- MASONRY

COUNTY	LOSS COSTS	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-2.30696%	-2.85673%	-5.45334%	-5.03436%	-4.47725%	-5.88614%	-5.45334%	-4.97501%
Baker	WGHTD AVE	8.24685%	11.98113%	15.02447%	15.22404%	14.41524%	14.74685%	15.02447%	14.90055%
Bay	WGHTD AVE	100.73587%	128.54163%	161.29509%	163.83442%	161.46040%	158.88813%	161.29509%	163.95046%
Bradford	WGHTD AVE	-16.39257%	-17.92161%	-22.83994%	-22.39871%	-21.29940%	-23.50939%	-22.83994%	-22.23241%
Brevard	WGHTD AVE	-13.02025%	-9.65137%	-14.95071%	-14.97188%	-14.58750%	-14.91854%	-14.95071%	-14.91068%
Broward	WGHTD AVE	-16.16090%	-14.44648%	-14.73160%	-14.49621%	-14.13922%	-14.87212%	-14.73160%	-14.40647%
Calhoun	WGHTD AVE	11.39217%	5.00205%	-11.04429%	-10.82904%	-8.54180%	-10.67905%	-11.04429%	-10.65160%
Charlotte	WGHTD AVE	5.77805%	16.25798%	27.26008%	28.28959%	27.67180%	26.39411%	27.26008%	28.31680%
Citrus	WGHTD AVE	-10.97948%	-10.36162%	-13.23476%	-12.52067%	-11.64460%	-13.68096%	-13.23476%	-12.22685%
Clay	WGHTD AVE	8.99226%	11.80929%	15.06317%	15.12038%	15.54132%	14.56305%	15.06317%	15.72291%
Collier	WGHTD AVE	2.52462%	8.74285%	11.07576%	11.44084%	11.42196%	10.82726%	11.07576%	11.47083%
Columbia	WGHTD AVE	-27.25429%	-35.40304%	-45.66593%	-45.08114%	-43.28305%	-45.53453%	-45.66593%	-44.82281%
De Soto	WGHTD AVE	15.77885%	33.58362%	57.31592%	58.69430%	56.03119%	55.97943%	57.31592%	58.31982%
Dixie	WGHTD AVE	4.59190%	7.62800%	20.55143%	21.67801%	20.90262%	18.90920%	20.55143%	22.08571%
Duval	WGHTD AVE	0.51652%	2.05126%	3.37494%	3.99954%	4.30329%	2.86751%	3.37494%	4.16206%
Escambia	WGHTD AVE	215.34751%	278.04032%	425.10581%	433.44168%	422.03331%	417.07325%	425.10581%	432.81501%
Flagler	WGHTD AVE	56.68737%	89.56806%	138.94427%	140.70224%	134.25084%	136.58058%	138.94427%	139.67942%
Franklin	WGHTD AVE	-18.42256%	-20.70275%	-28.22337%	-28.45059%	-28.07479%	-28.00155%	-28.22337%	-28.44547%
Gadsen	WGHTD AVE	-18.87598%	-21.62764%	-32.82373%	-31.91044%	-30.15375%	-32.91288%	-32.82373%	-31.64007%
Gilchrist	WGHTD AVE	-10.89151%	-14.87434%	-20.20874%	-19.66400%	-18.45477%	-20.25004%	-20.20874%	-19.32702%
Glades	WGHTD AVE	-43.80583%	-49.37500%	-60.53763%	-60.78546%	-59.88024%	-60.26490%	-60.53763%	-60.72508%
Gulf	WGHTD AVE	27.27132%	22.64702%	33.61111%	34.44059%	34.97214%	32.99226%	33.61111%	34.66169%
Hamilton	WGHTD AVE	-19.64216%	-15.52874%	-27.33288%	-27.02203%	-26.18128%	-27.40735%	-27.33288%	-26.90668%
Hardee	WGHTD AVE	-2.42292%	3.02600%	3.24259%	3.40749%	3.64762%	3.01263%	3.24259%	3.60889%
Hendry	WGHTD AVE	4.87505%	14.07370%	20.45813%	21.16056%	20.78608%	19.88912%	20.45813%	21.07807%
Hernando	WGHTD AVE	7.08235%	18.00914%	30.37771%	31.67785%	30.83028%	29.07964%	30.37771%	31.85968%
Highlands	WGHTD AVE	-10.66229%	-9.86370%	-13.24674%	-12.88750%	-12.23643%	-13.34764%	-13.24674%	-12.73747%

Hillsborough	WGHTD AVE	1.24838%	10.13740%	21.46393%	22.36525%	21.56868%	20.68670%	21.46393%	22.38689%
Holmes	WGHTD AVE	17.87733%	16.65155%	17.53876%	18.33650%	18.67821%	16.79772%	17.53876%	18.54619%
Indian River	WGHTD AVE	-11.11204%	-8.58203%	-15.19847%	-15.29852%	-14.80107%	-15.06961%	-15.19847%	-15.24295%
Jackson	WGHTD AVE	22.42762%	20.66085%	19.09900%	19.50062%	20.41683%	19.09105%	19.09900%	19.76824%
Jefferson	WGHTD AVE	-18.43089%	-18.90250%	-14.13111%	-13.59152%	-13.67298%	-14.76009%	-14.13111%	-13.59892%
Lafayette	WGHTD AVE	-7.99932%	-3.64231%	3.24604%	4.07663%	3.29509%	2.27799%	3.24604%	4.43770%
Lake	WGHTD AVE	-0.71373%	1.87441%	-2.91694%	-2.84283%	-2.17073%	-3.05789%	-2.91694%	-2.62877%
Lee	WGHTD AVE	-5.08634%	-0.22668%	0.35834%	0.67839%	0.88533%	0.11779%	0.35834%	0.77988%
Leon	WGHTD AVE	-6.97136%	-10.09993%	-11.02023%	-10.20753%	-9.53726%	-11.39395%	-11.02023%	-10.13583%
Levy	WGHTD AVE	-16.46793%	-24.82962%	-30.97030%	-30.76382%	-29.60570%	-30.81684%	-30.97030%	-30.60784%
Liberty	WGHTD AVE	-18.29331%	-30.21937%	-42.53575%	-42.07701%	-39.73433%	-42.26790%	-42.53575%	-41.59287%
Madison	WGHTD AVE	-19.96842%	-19.82371%	-21.02964%	-20.19298%	-19.76647%	-21.45156%	-21.02964%	-20.11813%
Manatee	WGHTD AVE	4.47696%	16.00015%	26.15157%	27.16164%	26.79215%	25.33450%	26.15157%	27.26868%
Marion	WGHTD AVE	-2.82118%	-2.17677%	-7.72740%	-7.15174%	-6.01311%	-7.94205%	-7.72740%	-6.92257%
Martin	WGHTD AVE	-31.29070%	-29.46912%	-39.87329%	-40.22739%	-39.87023%	-39.56547%	-39.87329%	-40.25295%
Miami-Dade	WGHTD AVE	28.56446%	33.69539%	47.86144%	49.21260%	49.83364%	46.90319%	47.86144%	49.52350%
Monroe	WGHTD AVE	153.38590%	212.11494%	232.28193%	237.97422%	241.14714%	228.30501%	232.28193%	239.40678%
Nassau	WGHTD AVE	-21.01139%	-29.84379%	-31.49213%	-31.39223%	-30.16763%	-31.55363%	-31.49213%	-30.99956%
Okaloosa	WGHTD AVE	153.34016%	183.86087%	260.49854%	264.50120%	259.77021%	256.83938%	260.49854%	264.42663%
Okeechobee	WGHTD AVE	-53.52906%	-60.07308%	-71.75082%	-72.04967%	-71.25482%	-71.39872%	-71.75082%	-71.97618%
Orange	WGHTD AVE	-11.06875%	-11.31662%	-19.04792%	-18.95184%	-17.84751%	-19.00481%	-19.04792%	-18.74497%
Osceola	WGHTD AVE	-4.14704%	-2.76579%	-8.70461%	-8.66456%	-7.66797%	-8.78008%	-8.70461%	-8.43068%
Palm Beach	WGHTD AVE	-16.96020%	-14.28140%	-15.90820%	-15.65500%	-15.21803%	-16.05563%	-15.90820%	-15.55451%
Pasco	WGHTD AVE	-3.49683%	1.65468%	5.31599%	6.07691%	6.05729%	4.80882%	5.31599%	6.17432%
Pinellas	WGHTD AVE	12.75806%	29.05110%	48.24858%	49.86851%	48.51851%	46.87694%	48.24858%	49.96360%
Polk	WGHTD AVE	-2.07411%	4.90220%	5.06828%	5.35673%	5.26253%	4.81580%	5.06828%	5.34401%
Putnam	WGHTD AVE	20.98609%	23.41234%	29.79326%	29.64748%	29.07727%	29.60670%	29.79326%	29.72143%
St. Johns	WGHTD AVE	33.57213%	40.10274%	70.10202%	71.15647%	69.04612%	68.67343%	70.10202%	71.13415%
St. Lucie	WGHTD AVE	-21.02156%	-19.42160%	-27.73827%	-27.89052%	-27.31573%	-27.53738%	-27.73827%	-27.84797%
Santa Rosa	WGHTD AVE	145.30217%	173.79659%	218.26372%	220.35256%	217.83627%	216.17002%	218.26372%	220.10303%
Sarasota	WGHTD AVE	6.03327%	19.64765%	33.03519%	34.23958%	33.37254%	32.01226%	33.03519%	34.29214%
Seminole	WGHTD AVE	-5.99376%	-4.07623%	-9.46860%	-9.31357%	-8.48030%	-9.51473%	-9.46860%	-9.17688%
Sumter	WGHTD AVE	-29.70627%	-33.99625%	-47.20182%	-47.14764%	-45.80469%	-47.00143%	-47.20182%	-46.93116%
Suwanee	WGHTD AVE	-19.31082%	-19.95856%	-26.27720%	-25.47430%	-24.36135%	-26.17924%	-26.27720%	-25.12985%
Taylor	WGHTD AVE	-1.06887%	5.41752%	27.73128%	29.45552%	26.95207%	26.26941%	27.73128%	29.27591%

Union	WGHTD AVE	-3.17793%	-4.64517%	-4.46395%	-3.97069%	-4.24418%	-4.66029%	-4.46395%	-4.04760%
Volusia	WGHTD AVE	7.64040%	16.91625%	17.38914%	17.53079%	17.46084%	17.23570%	17.38914%	17.54730%
Wakulla	WGHTD AVE	-24.77200%	-31.98928%	-35.52092%	-35.39941%	-34.43580%	-35.39403%	-35.52092%	-35.23782%
Walton	WGHTD AVE	151.46887%	160.70032%	270.82434%	276.20537%	271.14530%	266.27303%	270.82434%	275.99463%
Washington	WGHTD AVE	3.78230%	-10.97765%	-19.45171%	-19.60155%	-18.13054%	-18.98508%	-19.45171%	-19.41811%
STATEWIDE	WGHTD AVE	-0.58098%	1.30870%	6.18264%	6.65423%	6.92471%	5.84617%	6.18264%	6.76824%

LOSS COSTS PER $1,000

PERSONAL RESIDENTIAL - CONDO -- FRAME

COUNTY	LOSS COSTS	$0 DEDUCTIBLE			$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
		STRUCTURE	CONTENTS	ADDITIONAL LIVING EXPENSE						
Alachua	WGHTD AVE	-0.82164%	-0.70391%	-1.05028%	-2.40967%	-3.80751%	-2.94904%	-1.30192%	-1.83723%	-2.27703%
Baker	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Bay	WGHTD AVE	80.71302%	96.92874%	122.22355%	129.46345%	151.63594%	156.53091%	101.34119%	105.62300%	114.34412%
Bradford	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Brevard	WGHTD AVE	-17.98253%	-22.38721%	-21.07278%	-24.16813%	-27.05317%	-27.15796%	-21.34735%	-21.90478%	-22.63642%
Broward	WGHTD AVE	-9.39232%	-5.68143%	0.02190%	-3.35508%	-2.06001%	-1.22670%	-5.27193%	-5.09980%	-4.34182%
Calhoun	WGHTD AVE	16.99463%	8.02377%	0.00000%	-7.65766%	-20.47556%	-20.48930%	7.01249%	4.84558%	0.06570%
Charlotte	WGHTD AVE	-5.31809%	14.61958%	21.35957%	20.27521%	29.58746%	32.11902%	10.36784%	11.54431%	14.86667%
Citrus	WGHTD AVE	-10.15097%	-11.67320%	-11.11394%	-12.03942%	-13.10793%	-10.74185%	-11.12404%	-11.68291%	-11.75276%
Clay	WGHTD AVE	6.24163%	9.11936%	13.75715%	13.55651%	20.01611%	21.09929%	9.38778%	10.02222%	11.04917%
Collier	WGHTD AVE	-4.03991%	3.35826%	8.91798%	7.15939%	11.35805%	12.37694%	2.60937%	3.16387%	4.79706%
Columbia	WGHTD AVE	-18.22295%	-22.51156%	-25.15106%	-30.53837%	-39.00499%	-38.23461%	-23.34361%	-25.02802%	-27.16818%
De Soto	WGHTD AVE	0.49444%	20.57643%	38.62875%	33.31153%	59.62639%	64.51965%	16.26636%	18.13601%	23.56178%
Dixie	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Duval	WGHTD AVE	6.79378%	9.41583%	14.23540%	14.75821%	21.05380%	22.64428%	9.93211%	10.53462%	11.81270%
Escambia	WGHTD AVE	165.71654%	291.31500%	376.68402%	454.19730%	601.09327%	628.26190%	293.28842%	315.61530%	364.35978%
Flagler	WGHTD AVE	46.89379%	79.86643%	140.32850%	122.24477%	191.78025%	197.96757%	78.54546%	84.62682%	97.88050%
Franklin	WGHTD AVE	-6.48450%	-10.70341%	-14.81466%	-14.34121%	-15.51396%	-15.24210%	-11.43966%	-12.02825%	-13.11722%
Gadsen	WGHTD AVE	-8.84086%	0.00000%	0.00000%	-13.46405%	-15.93533%	-14.28571%	-11.54979%	-12.51673%	-13.19444%
Gilchrist	WGHTD AVE	0.00000%	-9.45640%	0.00000%	-14.90223%	-18.49315%	-17.35160%	-10.34232%	-11.24047%	-12.83317%
Glades	WGHTD AVE	-30.53875%	-48.70308%	0.00000%	-54.83188%	-62.93034%	-63.49614%	-45.59563%	-47.11530%	-50.03624%
Gulf	WGHTD AVE	32.85528%	42.27362%	48.62682%	53.57338%	62.83383%	66.06529%	42.43671%	43.84695%	47.15413%
Hamilton	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Hardee	WGHTD AVE	-8.35487%	-0.95825%	5.86767%	2.59395%	9.58904%	12.16678%	-2.54709%	-2.15306%	-0.38434%
Hendry	WGHTD AVE	-3.38322%	5.33405%	16.92352%	11.40881%	19.51056%	21.65671%	4.55809%	5.24835%	7.59497%
Hernando	WGHTD AVE	-8.37974%	-0.81722%	5.77762%	0.99367%	6.34238%	9.24931%	-2.79523%	-2.73019%	-1.34663%
Highlands	WGHTD AVE	-8.05464%	-6.39462%	-3.94929%	-5.28230%	-3.77282%	-1.78415%	-6.71476%	-6.85710%	-6.10449%

Hillsborough	WGHTD AVE	-7.72855%	7.48405%	17.53646%	15.42225%	30.25777%	33.57498%	4.19685%	5.38146%	9.06537%
Holmes	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Indian River	WGHTD AVE	-1.23660%	-12.49249%	-2.41034%	-9.98731%	-12.28798%	-12.51737%	-7.61285%	-7.94643%	-8.56783%
Jackson	WGHTD AVE	11.42857%	0.00000%	0.00000%	4.27807%	-0.69444%	0.80321%	7.45482%	6.24458%	5.14874%
Jefferson	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Lafayette	WGHTD AVE	-10.47794%	-9.74188%	0.00000%	-5.45455%	-0.21322%	1.74564%	-9.79858%	-9.98152%	-8.96000%
Lake	WGHTD AVE	-6.53564%	-9.71380%	-9.41367%	-11.95503%	-15.77322%	-15.01334%	-9.09972%	-9.74472%	-10.37267%
Lee	WGHTD AVE	-11.12591%	-0.40874%	-1.97008%	-1.86895%	0.36512%	1.20146%	-4.46504%	-4.21259%	-3.20476%
Leon	WGHTD AVE	-1.17484%	-0.95376%	-1.31111%	-1.27886%	-0.86994%	0.53574%	-1.42748%	-1.83341%	-1.91849%
Levy	WGHTD AVE	31.59722%	56.28743%	79.43662%	98.77925%	145.87459%	153.35893%	57.85609%	63.02198%	74.64986%
Liberty	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Madison	WGHTD AVE	-18.94531%	-19.69561%	-19.78799%	-18.85566%	-17.88991%	-16.35389%	-19.78923%	-20.33223%	-20.24117%
Manatee	WGHTD AVE	-10.31865%	6.76948%	13.08025%	12.35993%	20.35348%	22.66270%	3.59040%	4.59537%	7.58337%
Marion	WGHTD AVE	-0.36985%	-5.35713%	-2.39378%	-9.70972%	-18.30592%	-17.42672%	-3.99955%	-5.00844%	-6.39157%
Martin	WGHTD AVE	-9.87197%	-23.59016%	-19.09341%	-24.37494%	-27.24380%	-28.02576%	-20.33439%	-20.90208%	-22.20437%
Miami-Dade	WGHTD AVE	20.69518%	45.14008%	67.08651%	57.39098%	65.53292%	68.77927%	45.67069%	47.26013%	51.45662%
Monroe	WGHTD AVE	81.68659%	145.83620%	208.66377%	183.95729%	217.12391%	228.67806%	142.81536%	148.43232%	162.22327%
Nassau	WGHTD AVE	-16.46306%	-20.50417%	-24.27267%	-26.08938%	-30.70568%	-30.05093%	-20.97379%	-22.07520%	-23.62038%
Okaloosa	WGHTD AVE	118.01096%	190.50123%	232.51061%	271.00199%	333.24037%	343.92662%	191.71411%	203.34193%	228.25786%
Okeechobee	WGHTD AVE	-34.94467%	-54.47179%	-59.79971%	-61.66541%	-70.56622%	-71.16530%	-51.42135%	-53.16642%	-56.43006%
Orange	WGHTD AVE	-11.47556%	-17.07040%	-18.74183%	-20.89077%	-28.91223%	-28.53777%	-15.81196%	-16.67731%	-17.89079%
Osceola	WGHTD AVE	-1.82275%	-2.83754%	-0.25478%	-3.03783%	-5.90873%	-4.72028%	-2.14392%	-2.33555%	-2.21030%
Palm Beach	WGHTD AVE	-12.19638%	-13.75915%	-7.61290%	-11.76518%	-11.61201%	-11.15834%	-12.03777%	-12.07662%	-11.89044%
Pasco	WGHTD AVE	-18.42912%	-14.32172%	-14.78688%	-17.88687%	-19.21432%	-18.14720%	-16.77420%	-17.21633%	-17.37226%
Pinellas	WGHTD AVE	-6.13275%	14.13116%	24.48546%	23.08226%	37.27231%	40.25054%	10.14814%	11.61268%	15.85937%
Polk	WGHTD AVE	-4.51780%	2.28252%	10.58730%	5.48939%	11.83450%	13.63208%	0.75896%	1.17447%	2.96665%
Putnam	WGHTD AVE	-3.17828%	-11.30513%	-18.53069%	-21.04495%	-29.27013%	-29.78815%	-11.34225%	-12.80181%	-15.87716%
St. Johns	WGHTD AVE	8.08401%	18.61275%	23.19868%	28.35954%	38.10459%	40.28081%	17.90528%	19.45437%	22.44753%
St. Lucie	WGHTD AVE	-1.29605%	-4.58944%	4.12614%	-4.10253%	-5.06984%	-5.21097%	-3.06825%	-3.17696%	-3.37907%
Santa Rosa	WGHTD AVE	104.45807%	141.82231%	159.92918%	174.39861%	194.38731%	198.14440%	143.00480%	148.39863%	158.60101%
Sarasota	WGHTD AVE	-6.28687%	10.88581%	24.52255%	21.56064%	36.93555%	39.85829%	8.37783%	9.92433%	14.21393%
Seminole	WGHTD AVE	-6.78972%	-8.52525%	-7.33373%	-10.35098%	-14.85503%	-14.17020%	-8.10158%	-8.58414%	-8.88817%
Sumter	WGHTD AVE	-23.44909%	-39.98725%	-45.94094%	-47.07206%	-57.05251%	-57.35810%	-37.08799%	-38.78703%	-41.83465%
Suwanee	WGHTD AVE	-28.67464%	-33.84944%	-44.44552%	-47.11198%	-54.97392%	-54.56742%	-37.22045%	-39.21122%	-42.35899%
Taylor	WGHTD AVE	3.37079%	7.74236%	10.00000%	14.18384%	20.81395%	23.78378%	7.41365%	7.87145%	9.86159%

Union	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Volusia	WGHTD AVE	0.95851%	7.07890%	12.15873%	9.97034%	14.05976%	14.90061%	5.83935%	6.43005%	8.02040%
Wakulla	WGHTD AVE	-19.91726%	-26.38383%	-29.15988%	-32.26462%	-36.51572%	-36.15907%	-26.71158%	-27.98547%	-29.75447%
Walton	WGHTD AVE	112.50552%	121.29860%	191.36575%	191.01373%	236.65428%	245.27403%	137.00253%	144.62444%	161.15309%
Washington	WGHTD AVE	43.86364%	47.70355%	52.24490%	53.13433%	61.03896%	63.03030%	47.82016%	48.52941%	49.55045%
STATEWIDE	WGHTD AVE	-3.56504%	8.27988%	11.10000%	9.74796%	13.28737%	14.28145%	5.71388%	6.19286%	7.64996%

Constructed from Nov 2005 ROA and March 2006 components

PERSONAL RESIDENTIAL - CONDO -- MASONRY

COUNTY	LOSS COSTS	$0 DEDUCTIBLE STRUCTURE	$0 DEDUCTIBLE CONTENTS	$0 DEDUCTIBLE ADDITIONAL LIVING EXPENSE	$500 DEDUCTIBLE TOTAL*	$1,000 DEDUCTIBLE TOTAL*	$2,500 DEDUCTIBLE TOTAL*	1% DEDUCTIBLE TOTAL*	2% DEDUCTIBLE TOTAL*	5% DEDUCTIBLE TOTAL*
Alachua	WGHTD AVE	-0.93671%	0.00728%	-0.58561%	-2.20740%	-3.50854%	-2.67828%	-1.00321%	-1.47450%	-1.94946%
Baker	WGHTD AVE	7.36607%	0.00000%	0.00000%	11.98630%	16.83849%	16.20553%	9.55414%	10.00000%	10.49180%
Bay	WGHTD AVE	75.55103%	95.95995%	115.87168%	126.75300%	149.31407%	153.18360%	98.95842%	103.16476%	111.80169%
Bradford	WGHTD AVE	-19.76070%	-2.92956%	-1.78363%	-15.61082%	-19.58424%	-18.71967%	-12.75199%	-13.62942%	-14.50884%
Brevard	WGHTD AVE	-16.48865%	-19.66699%	-18.24580%	-20.81452%	-22.97730%	-23.20171%	-18.75245%	-19.15792%	-19.70364%
Broward	WGHTD AVE	-14.77645%	-9.91298%	-5.93338%	-7.58245%	-5.34906%	-4.61182%	-10.20455%	-10.03782%	-9.04635%
Calhoun	WGHTD AVE	17.67919%	14.21569%	0.00000%	1.14176%	-9.05041%	-8.38183%	11.12919%	9.52993%	6.41320%
Charlotte	WGHTD AVE	-5.16673%	4.59612%	13.15150%	10.11243%	19.80560%	20.92014%	2.94405%	3.79112%	6.01607%
Citrus	WGHTD AVE	-10.50706%	-11.92617%	-10.65230%	-13.20321%	-14.65997%	-13.26942%	-11.77522%	-12.41337%	-12.71679%
Clay	WGHTD AVE	10.44322%	15.43568%	21.13914%	21.95085%	32.17686%	33.47629%	15.79047%	16.84123%	18.34489%
Collier	WGHTD AVE	-4.55044%	2.09945%	7.66443%	4.84139%	9.21960%	9.67507%	1.00649%	1.53640%	2.78750%
Columbia	WGHTD AVE	-14.93869%	-20.40887%	-29.68862%	-27.88244%	-36.04663%	-35.05360%	-21.51822%	-23.07519%	-25.01150%
De Soto	WGHTD AVE	1.28999%	17.54085%	37.55366%	31.33587%	62.99114%	64.77447%	15.05318%	17.01113%	21.76527%
Dixie	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Duval	WGHTD AVE	-2.05073%	-5.18649%	-0.12147%	-4.50851%	-4.84459%	-3.92822%	-3.88862%	-4.23860%	-4.49294%
Escambia	WGHTD AVE	165.65191%	267.54672%	358.39379%	433.67482%	579.16075%	600.96568%	277.83911%	299.00313%	346.52639%
Flagler	WGHTD AVE	25.30033%	45.81339%	77.05598%	68.97879%	107.86842%	109.54464%	44.89892%	48.43404%	55.49843%
Franklin	WGHTD AVE	-11.81772%	-27.18763%	-26.24278%	-31.01739%	-33.73197%	-33.96896%	-25.12685%	-26.23132%	-28.36292%
Gadsen	WGHTD AVE	-19.69407%	-27.21992%	-33.86076%	-36.16279%	-46.21359%	-45.12472%	-27.90191%	-29.88930%	-32.38321%
Gilchrist	WGHTD AVE	-20.91503%	-28.96138%	-36.49289%	-38.81356%	-47.68638%	-46.92654%	-29.97831%	-32.00000%	-34.70375%
Glades	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Gulf	WGHTD AVE	5.57276%	38.29133%	0.00000%	40.42985%	46.59748%	48.72115%	33.64239%	34.41812%	36.34159%
Hamilton	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Hardee	WGHTD AVE	-0.05470%	0.00000%	0.00000%	12.13018%	24.43992%	25.03008%	5.68754%	6.47059%	8.44265%
Hendry	WGHTD AVE	-4.59114%	1.56632%	11.81021%	6.93437%	15.60993%	16.53576%	1.22291%	1.82458%	3.61338%
Hernando	WGHTD AVE	-5.72046%	-1.78375%	3.40017%	1.62071%	9.14524%	10.62783%	-2.34031%	-2.19495%	-0.96865%
Highlands	WGHTD AVE	-7.96400%	-7.22062%	-3.75858%	-6.18667%	-4.00973%	-3.30529%	-7.19040%	-7.31492%	-6.89055%

Hillsborough	WGHTD AVE	-7.94611%	6.00129%	18.60742%	15.48973%	36.32262%	38.10385%	3.35243%	4.71908%	8.33714%
Holmes	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Indian River	WGHTD AVE	-10.28673%	-20.66465%	-18.85072%	-22.71754%	-26.92711%	-27.40397%	-18.04296%	-18.75321%	-20.17723%
Jackson	WGHTD AVE	13.09295%	11.56347%	9.86239%	7.35650%	2.89061%	4.20842%	10.52530%	9.30459%	8.31405%
Jefferson	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Lafayette	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Lake	WGHTD AVE	1.01887%	2.01558%	6.14834%	1.88928%	1.67956%	2.01061%	2.01617%	1.89601%	2.01248%
Lee	WGHTD AVE	-10.54424%	-5.51391%	-2.57669%	-5.67831%	-3.75148%	-3.32599%	-7.30013%	-7.13747%	-6.56449%
Leon	WGHTD AVE	-5.65171%	-6.90630%	-9.09256%	-10.29565%	-13.24413%	-11.88455%	-7.79102%	-8.60555%	-9.47795%
Levy	WGHTD AVE	2.77473%	22.68571%	8.58674%	19.88674%	30.27149%	32.81666%	11.08536%	11.95476%	14.41554%
Liberty	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Madison	WGHTD AVE	-4.24929%	-2.47934%	3.03030%	4.82759%	17.24138%	16.75978%	-1.83824%	-1.28617%	0.43290%
Manatee	WGHTD AVE	-10.58279%	0.39502%	9.98070%	7.13622%	15.69650%	17.12438%	-0.73945%	0.20359%	2.73030%
Marion	WGHTD AVE	-18.87525%	-29.91944%	-36.30752%	-37.26001%	-48.55597%	-48.22241%	-28.39132%	-30.04210%	-32.60485%
Martin	WGHTD AVE	-18.00152%	-32.68055%	-29.94298%	-35.20482%	-39.72043%	-40.52759%	-29.32433%	-30.26498%	-32.11539%
Miami-Dade	WGHTD AVE	6.91084%	42.63138%	52.87772%	51.87781%	65.09267%	68.17390%	36.31742%	38.35536%	43.59328%
Monroe	WGHTD AVE	83.42802%	166.64408%	218.59654%	207.85807%	248.86178%	260.03094%	159.04841%	165.74185%	181.82860%
Nassau	WGHTD AVE	-15.45888%	-19.77179%	-23.32378%	-25.06794%	-29.95272%	-29.20140%	-20.10453%	-21.15410%	-22.74653%
Okaloosa	WGHTD AVE	108.89290%	168.38621%	216.81405%	238.99454%	293.37005%	300.21235%	170.40727%	180.51070%	202.21645%
Okeechobee	WGHTD AVE	-32.08253%	-49.31316%	-56.20453%	-57.65941%	-68.37442%	-68.83592%	-46.88575%	-48.76679%	-52.05230%
Orange	WGHTD AVE	-10.44906%	-14.55905%	-15.80133%	-17.80551%	-24.89195%	-24.78450%	-13.75017%	-14.47147%	-15.46736%
Osceola	WGHTD AVE	-3.24798%	-4.07398%	-2.00565%	-5.94777%	-9.89997%	-9.69960%	-4.01306%	-4.28228%	-4.68036%
Palm Beach	WGHTD AVE	-16.04968%	-11.94925%	-8.21706%	-10.59191%	-8.94834%	-8.34612%	-12.44062%	-12.36441%	-11.63102%
Pasco	WGHTD AVE	-10.53161%	-6.48423%	-4.28549%	-5.84279%	-2.47148%	-1.49298%	-7.67122%	-7.68126%	-7.05134%
Pinellas	WGHTD AVE	-6.72644%	9.09359%	22.20351%	19.09204%	34.63062%	36.59309%	6.89830%	8.35836%	12.12022%
Polk	WGHTD AVE	-5.51203%	-2.45086%	3.35519%	-0.48450%	3.69605%	3.82302%	-2.80236%	-2.59984%	-1.76440%
Putnam	WGHTD AVE	13.61821%	8.31901%	8.28429%	11.06212%	11.90614%	12.02187%	11.00570%	11.22635%	11.00792%
St. Johns	WGHTD AVE	17.18083%	30.20622%	38.66278%	47.12556%	64.13990%	65.89506%	30.58856%	33.10193%	37.96009%
St. Lucie	WGHTD AVE	-10.73464%	-19.43047%	-14.59907%	-20.75931%	-24.50187%	-24.97572%	-16.67227%	-17.33912%	-18.47970%
Santa Rosa	WGHTD AVE	112.46757%	151.10493%	185.67293%	197.00652%	226.16553%	229.20204%	155.52072%	162.57266%	175.95796%
Sarasota	WGHTD AVE	-8.98613%	3.45716%	16.27492%	12.76051%	27.81446%	29.59019%	1.95305%	3.25295%	6.55002%
Seminole	WGHTD AVE	-5.51739%	-6.80533%	-5.00231%	-7.92413%	-11.10019%	-10.69749%	-6.36692%	-6.71599%	-6.93873%
Sumter	WGHTD AVE	-23.50877%	-34.76669%	-40.57476%	-43.63617%	-55.19062%	-55.31422%	-33.69964%	-35.44150%	-38.38057%
Suwanee	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
Taylor	WGHTD AVE	3.38983%	5.83051%	8.19277%	11.48532%	17.20991%	19.63470%	5.94235%	6.15157%	7.84920%

Union	WGHTD AVE	-11.71171%	-13.99132%	-15.74074%	-16.23037%	-19.78799%	-19.02834%	-14.25486%	-14.97908%	-15.51339%
Volusia	WGHTD AVE	-3.30910%	0.35429%	6.55280%	3.46050%	7.07838%	7.28815%	0.39879%	0.85208%	1.91132%
Wakulla	WGHTD AVE	-12.68238%	-20.95697%	-26.24585%	-29.28315%	-33.98664%	-34.05018%	-21.64851%	-23.02049%	-25.66501%
Walton	WGHTD AVE	113.52777%	150.44273%	206.11684%	228.19878%	284.81416%	292.87706%	161.83588%	171.26364%	191.91888%
Washington	WGHTD AVE	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
STATEWIDE	WGHTD AVE	-9.29994%	3.43045%	5.22072%	5.48684%	10.48236%	11.53312%	0.23388%	0.82424%	2.61914%

STATISTICAL STANDARDS

S-1 Modeled Results and Goodness-of-Fit

A. The use of historical data in developing the model shall be supported by rigorous methods published in currently accepted scientific literature.

The historical data for the period 1900-2006 was modeled using scientifically accepted methods that had been published.

B. Modeled and historical results shall reflect agreement using currently accepted scientific and statistical methods.

Modeled and historical results are in agreement as indicated by appropriate statistical and scientific tests. Some of these tests will be discussed below.

Disclosures

1. ***Identify the form of the probability distributions used for each function or variable, if applicable. Identify statistical techniques used for the estimates and the specific goodness-of-fit tests applied. Describe whether the p-values associated with the fitted distributions provide a reasonable agreement with the historical data.***

Historical initial conditions are used to provide the seed for storm genesis in the model. Small uniform random error terms are added to the historical starting positions, intensities and changes in storm motion. Subsequent storm motion and intensity is determined by randomly sampling empirical probability distribution functions derived from the HURDAT historical record.

Figure 44 shows the occurrence rate of both modeled and historical landfalling storms in Florida. The figure shows a good agreement between historical and modeled occurrences. A Chi square goodness of fit test gives a *p*-value of approximately 0.24 which indicates a good fit. An analysis of landfalls by each region and intensity in Florida is given in Form M-1.

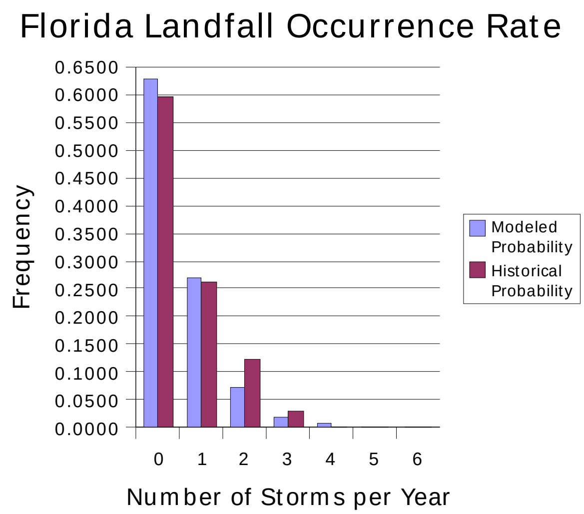


Figure 44. Comparison of simulated vs historical occurrences

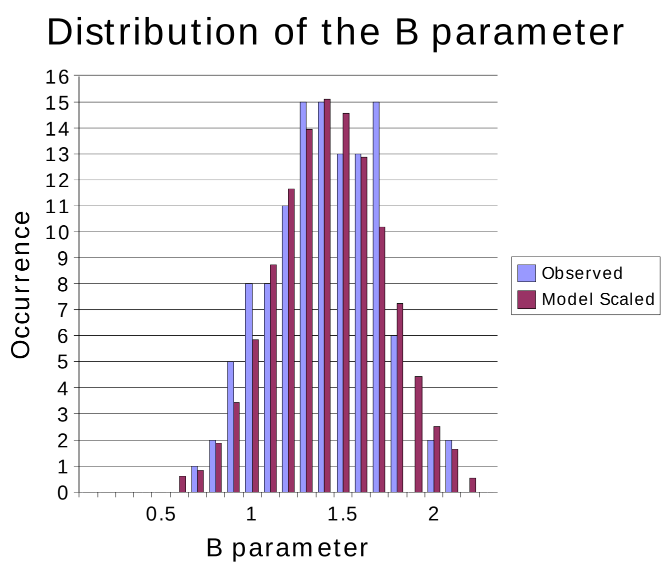


Figure 45: Comparison between the modeled and observed Willoughby and Rahn (2004) B data set

The random error term for the Holland B is modeled using a Gaussian distribution with a standard deviation of 0.286. Figure 45 shows a comparison between the Willoughby and Rahn (2004) B data set (see Standard M-4.1) and the modeled results (scaled to equal the 116 measured occurrences in the observed data set). The modeled results with the error term have a mean of about 1.38 and are consistent with the observed results. The figure indicates excellent agreement, and the Chi square goodness of fit gives a *p*-value about 0.89.

We develop a new *Rmax* model using the revised landfall *Rmax* database which includes 108 measurements for storms up to 2005. We have opted to model the *Rmax* at landfall rather than the entire basin for a variety of reasons. One is that the distribution of landfall *Rmax* may be different than that over open water. An analysis of the landfall *Rmax* database and the 1988-2007 DeMaria Extended Best Track data shows that there appears to be a difference in the dependence of *Rmax* on central pressure (*Pmin*) between the two data sets. The landfall data set provides a larger set of independent measurements, more than 100 storms compared to about 31 storms affecting the Florida threat area region in the Best Track Data. Since landfall *Rmax* is most relevant for loss cost estimation, and has a larger independent sample size, we have chosen to model the landfall data set. Future studies will examine how the Extended Best Track Data can be used to supplement the landfall data set.

Based on the semi-boundedness and skewness of *Rmax*, we sought to model the distribution using either a log normal or gamma distribution. Using the maximum likelihood estimation method, we found the estimated parameters for a log normal distribution as $\hat{\mu} = 3.15$, and $\hat{\sigma}^2 = 0.2327$, and for the gamma distribution, $\hat{k} = 5.53547$ and $\hat{\theta} = 4.67749$. With these estimated values, we show a plot of the observed and expected distribution for log normal and gamma in Figure 46. The *Rmax* values are binned in 5 sm intervals, with the *x*-axis showing the end value of the interval.

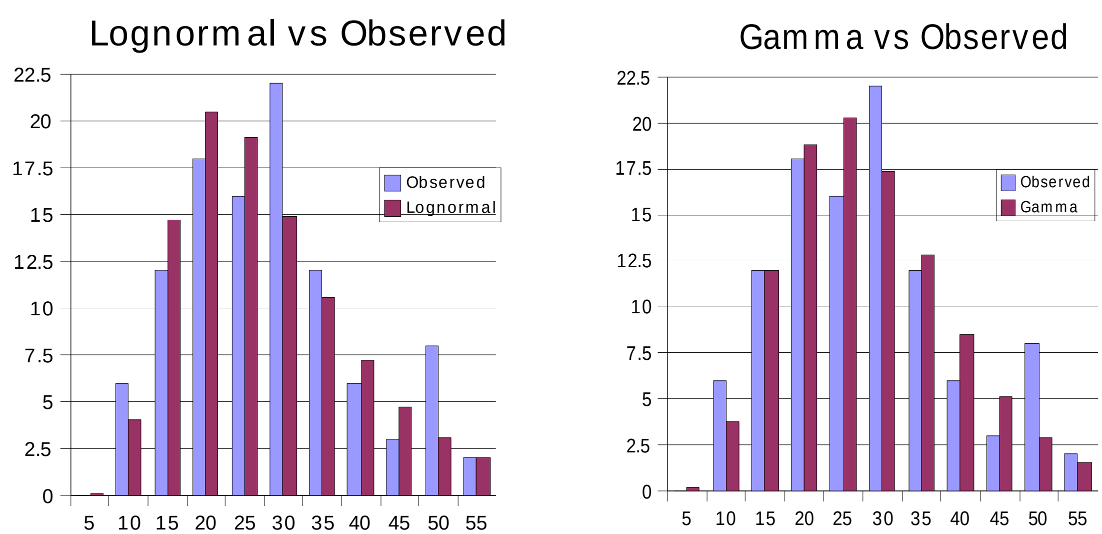


Figure 46. Observed and expected distribution for Lognormal (left) and Gamma (right)

The gamma distribution showed a better fit. A Chi square goodness of fit test yields a *p*-value of 0.41 for lognormal distribution and 0.71 for gamma distribution. The log normal also has a longer tail, which inflates the variance somewhat and leads to a greater probability of excessively large storms. On this basis, we have opted to use the gamma distribution for the stochastic model.

2. ***Provide the source and the number of years of the historical data set used to develop probability distributions for specific hurricane characteristics. If any modifications have been made to the data set, describe them in detail and their appropriateness.***

The model uses the National Hurricane Center HURDAT file from June 2006 for the period 1900-2005. This information is provided in detail in Disclosures M-1.1, M-1.2 and M-2.1. (Met Standards).

3. ***Describe the nature and results of the tests performed to validate the wind speeds generated.***

We compare the cumulative effect of a series of modeled and observed wind fields by comparing the peak winds observed at a particular zip code during the entire storm life-cycle. We also compare our modeled wind fields to those that have been constructed from all available observations which are freely available on the NOAA AOML-HRD web site. A subsequent section describes the process for recording the peak modeled and observed wind speeds (wind swaths) from which the validation statistics are generated. Our validation is based on nine hurricanes that by-passed or made landfall in Florida. These hurricanes were well observed and we will have the ability to add new storms and quickly conduct new validation studies as our validation set grows and we make enhancements to the model. In order to run the Loss Model in “scenario” mode for doing validation studies, we had to construct detailed storm track histories for recent storms affecting Florida using the HURDAT, Rmax and Holland Beta databases. The validation suite included 1992 Hurricane Andrew and the following 2004 and 2005 storms: Charley, Frances, Jeanne, Ivan, Dennis, Katrina, Rita, and Wilma. The validations make use of the Hurricane Research Division’s Surface Wind Analysis System (H*Wind).

a. H*Wind

The HRD approach to hurricane wind analysis employed in H*Wind evolved from a series of peer-reviewed, scientific publications analyzing landfalls of major hurricanes including Frederic of 1979, Alicia of 1983, Hugo of 1989, and Andrew of 1992 (Powell et al., 1991, Powell and Houston, 1996, 1998, Powell et al., 1998). In Powell et al., (1991) which described Hurricane Hugo's landfall, a concept was developed for conducting a real-time analysis of hurricane wind fields.. The system was first used in real-time during Hurricane Emily in 1993 (Burpee et al., 1994). Since 1994, HRD wind analyses have been conducted on an experimental basis to create real time hurricane wind field guidance for forecasters at the National Hurricane Center. During Hurricane landfall episodes from 1995-2005, HRD scientists have conducted research side by side with hurricane specialists at NHC analyzing wind observations on a regular 3 or 6 hour schedule consistent with NHC's warning and forecast cycle.

An HRD wind analysis requires the input of all available surface weather observations (e.g., ships, buoys, coastal platforms, surface aviation reports, reconnaissance aircraft data adjusted to the surface, etc.). Observational data are downloaded on a regular schedule and then processed to fit the analysis framework. This includes the data sent by NOAA P3 and G4 research aircraft during the HRD hurricane field program, including the Step Frequency Microwave Radiometer measurements of surface winds and U.S. Air Force Reserves (AFRES) C-130 reconnaissance aircraft, remotely sensed winds from the polar orbiting SSM/I and ERS, the QuikScat platform and TRMM microwave imager satellites, and GOES cloud drift winds derived from tracking low level near-infrared cloud imagery from these geostationary satellites. These data are composited relative to the storm over a 4-6 hour period. All data are quality controlled and processed to conform to a common framework for height (10 m or 33 feet), exposure (marine or open terrain over land), and averaging period (maximum sustained 1 minute wind speed) using accepted methods from micrometeorology and wind engineering (Powell et al., 1996, Powell and Houston, 1996). This framework is consistent with that used by the National Hurricane Center (NHC), and is readily converted to wind load frameworks used in building codes.

Based on a qualitative examination of various observing platforms and methods used to standardize observations, Powell et al., 2005 suggest that the uncertainty of the maximum wind from a given analysis ranges from 10-20 % depending on the observing platform. In general the uncertainty of a given H*Wind analysis is of the order of 10% for analysis of Hurricanes Ivan, Frances, Jeanne, and Katrina, all of which incorporated more accurate surface wind measurements from the Stepped Frequency Microwave Radiometer (SFMR) aboard the NOAA research aircraft. The SFMR data used for those analyses was post-processed during the fall of 2005 using the latest geophysical model function relating wind speed to sea surface foam emissivity. Hurricanes Charley, Dennis, Rita, Wilma, and Andrew did not have the benefit of SFMR measurements but relied on adjusting Air Force reconnaissance observations at the 3 km altitude to the surface with empirical reduction methods. The method used was based on how SFMR measurements compared to flight level winds and depended on storm relative azimuth. Preliminary results suggest that this method has an uncertainty of 15%.

We created wind swaths for both the modeled and observed winds. We also computed the maximum winds at zip codes for both the observed and modeled winds, and from that we derived the mean and root-mean-square error (see Table 18 and Table 19).

b. Wind Swaths

For each storm in the validation set, the peak sustained surface wind speed is recorded at each zip code in Florida for the duration of the storm event. Observed wind fields from H*Wind and modeled wind fields from the public model are moved along the exact same tracks, which are the observed high-resolution storm tracks assembled from reconnaissance aircraft and radar data. For each storm, the recorded peak of the observed and modeled wind speed is saved at each grid point as well as of each zip code, and the resulting zip code comparison pairs provide the basis for the model validation statistics. The peak grid point values are color contoured and mapped as graphics showing the "swath" of maximum winds swept out by the storm passage. Wind swaths are sometimes confused with a wind field. The winds depicted in a wind swath do not have time continuity, cannot depict a circulation, and therefore cannot be described as a wind field. A wind field represents a vector field that represents a representative instance of the surface wind circulation.

Wind swaths were constructed for both the modeled and observed winds. Maximum marine exposure winds were compared at all zip codes for both the observed and modeled winds (Figure 47) from which we derived the mean and root-mean-square error statistics shown in Table 19. This type of comparison provides an unvarnished assessment of model performance.

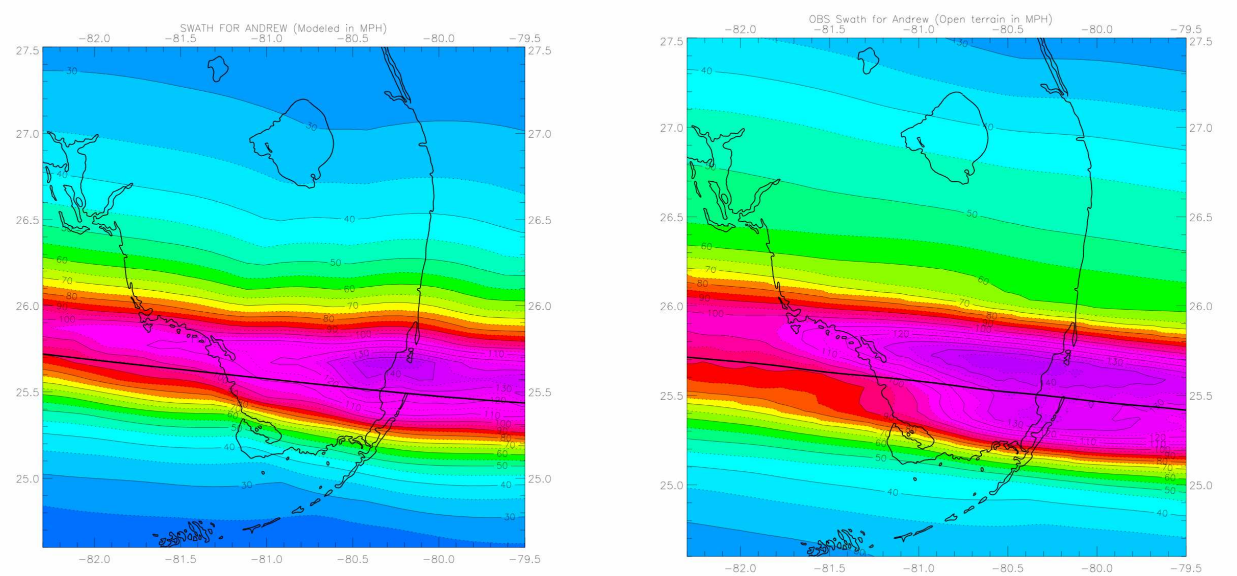


Figure 47. Comparison of modeled (left) and observed (right) swaths of maximum sustained open terrain surface winds for Hurricane Andrew of 1992 in South Florida. Hurricane Andrew observed swath is based on adjusting flight-level winds with the SFMR-based wind reduction method.

Table 18. Validation Table based on zip code wind swath comparison of the Public wind field model to H*Wind. Mean errors (bias) of model for the set of validation wind swaths. Errors (upper number in each cell) are computed as Modeled – Observed (Obs) at zip codes where modeled winds were within wind thresholds (model threshold) or where observed winds were within respective wind speed threshold (H*Wind threshold). Number of zip codes for the comparisons is indicated as the lower number in each cell.

Storms	Year	56-74 Model Threshold	75-112 Model Threshold	>112mph Model Threshold	>56mph Model Threshold	56-74 H*Wind Threshold	75-112 H*Wind Threshold	>112mph H*Wind Threshold	>56mph H*Wind Threshold
Andrew	1992	5.25 92	13.86 107	2.73 100	7.49 299	10.26 139	12.47 54	0.66 88	7.68 281
Charley	2004	12.96 112	21.36 244	-7.36 13	17.80 369	8.58 122	-3.09 63	-8.91 17	3.47 202
Frances	2004	3.99 693	-0.99 96	None	3.38 789	-0.59 372	-4.48 96	None	-1.38 468
Ivan	2004	-6.95 20	-3.35 38	None	-4.59 58	-5.76 22	-3.73 41	None	-4.44 63
Jeanne	2004	6.78 250	3.95 190	None	5.56 440	2.67 225	-3.87 121	None	0.38 346
Dennis	2005	2.45 15	6.98 46	None	5.87 61	5.22 29	7.57 29	-4.37 3	5.87 61
Dennis Keys	2005	None	None	None	None	-12.65 5	None	None	-12.65 5
Katrina	2005	-11.43 77	-2.42 100	None	-6.34 177	-8.93 93	-11.57 149	None	-10.55 242
Rita	2005	6.28 5	14.54 3	None	9.38 8	12.01 5	None	None	12.01 5
Wilma	2005	0.44 133	-9.99 394	None	-7.35 527	6.54 87	-13.35 396	None	-9.77 483
Mean Bias N	All	3.99 1397	2.80 1218	1.56 113	3.33 2728	2.38 1099	-7.76 949	-0.98 108	-2.25 2156

Table 19. Validation Table based on zip code wind swath comparison of the Public wind field model to H*Wind. Root mean square (RMS) wind speed errors (mph) of model for the set of validation wind swaths. Errors are based on Modeled – Observed (Obs) at zip codes where modeled winds were within wind thresholds (model threshold) or where observed winds were within respective wind speed threshold (H*Wind threshold). Number of zip codes for the comparisons is indicated as the lower number in each cell.

Storms	Year	56-74 Model Threshold	75-112 Model Threshold	>112mph Model Threshold	>56mph Model Threshold	56-74 H*Wind Threshold	75-112 H*Wind Threshold	>112mph H*Wind Threshold	>56mph H*Wind Threshold
Andrew	1992	6.11	15.75	7.024	10.81	12.19	14.26	5.82	11.10
Charley	2004	19.84	26.59	10.08	24.30	16.65	8.60	11.69	14.21
Frances	2004	8.08	11.20	None	8.52	4.99	10.20	None	6.41
Ivan	2004	7.07	5.20	None	5.91	6.11	5.51	None	5.72
Jeanne	2004	10.14	9.65	None	9.93	10.88	6.16	None	9.50
Dennis	2005	3.06	9.19	None	8.12	6.15	9.93	4.59	8.12
Dennis Keys	2005	None	None	None	None	12.67	None	None	12.67
Katrina	2005	14.66	8.25	None	11.49	12.50	17.97	None	16.09
Rita	2005	6.4992	14.54	None	10.28	12.41	None	None	12.41
Wilma	2005	14.73	14.05	None	14.22	12.51	14.83	None	14.44
RMS N	All	10.18 1397	14.87 1218	6.26 113	12.37 2728	9.75 1099	12.79 949	6.71 108	11.19 2156

Comparison of model and H*Wind sustained marine exposure wind speeds at zip codes receiving model wind speeds over the given thresholds (Table 18) indicates a positive bias. For zip codes where model wind speeds exceeded 56 mph, the bias is +3.3 mph and negative bias was apparent in Hurricanes Ivan, Katrina, and Wilma. At other wind speed thresholds, low bias is evident for winds > 112 mph in Charley, and winds of 75-112 mph in Frances, Ivan, Katrina, and Wilma. For winds of 56-74 mph, low bias is noted in Hurricanes Ivan, and Katrina. Errors for Andrew are relatively high but the lack of observations for Andrew makes it difficult to determine if it was a Cat 4 or Cat 5 hurricane during its landfall in South Florida. Rita in the Keys also shows relatively high bias but observations indicate that there were fluctuations in intensity over a short period of time during its passage past the Keys. Model errors for Charley are also relatively highly likely due to the model producing too broad a wind field. When model winds are compared to H*Wind at zip codes exceeding H*Wind, and sustained wind speed thresholds of 56 mph are considered, the mean bias is -2.2 mph. However, bias at other wind speed thresholds is larger, primarily caused by large model - H*Wind differences in Hurricane Andrew, Charley, and Rita.

When swaths are evaluated at zip codes, a positive wind speed bias of ~3 mph is indicated. However, the model can also under-predict swaths for individual cases. While bias correction is an accepted practice for numerical weather prediction, there is no evidence that the model has a consistent bias. The swath bias is probably associated with limitations in specifying the radial pressure profile after landfall. The tendency for the Holland pressure profile parameter to produce too broad an area of strong winds near the eyewall is the most likely cause of bias and is likely a feature found in many of the current risk models. Therefore we have decided to forego any corrective measures at this point.

Our validation set is unique in that the values of storm position, motion, Rmax and Pmin are observed, and B is determined independently from the H*Wind field. In other words, there is no tuning dial that we can turn to try to improve our results. Although additional validation storms are desired, we believe the positive bias for locations with winds > 56 mph is a characteristic of models that use the Holland B pressure profile parameter, which tends to produce model fields that are too broad outside the radius of maximum winds. Our validation method provides an objective means of assessing model performance by evaluating the portion of the wind field that contains damaging winds.

The root mean square (RMS) error (Table 19) provides a better estimate of model uncertainty. For zip codes in which model winds were 56-74 mph, the rms error is +/- 10 mph (~ 15%), for 75-112 mph the error is +/- 15 mph (~16%), and for winds > 112 mph the errors is +/- 6 mph (~ 5%). In general, for winds > 56 mph, the rms error is +/- 12 mph or ~ 13%. RMS errors are similar for zip codes in which H*Wind wind speeds fell into the respective thresholds.

j. Summary of Wind Field Model Validation

Validation of the winds from the wind model against the H*WIND analyses was prepared by considering winds that would be strong enough to be associated with damage. Threshold-based comparisons could miss places where the observed winds were greater than the model and the model was below the threshold. Conversely, observed winds over the same thresholds can be compared to the co-located model grid points but would miss places where the observed winds were below the threshold. It is important to evaluate the errors both ways to see if a consistent bias is evident. According to our validation statistics, albeit for a relatively small number of cases, wind swath zip code comparisons show evidence of a 3 mph positive bias but it is not consistent for all storms. The bias is likely related to the limitations of the Holland B pressure profile specification. The model uncertainty, as estimated by the RMS error, is on the order of 15%.

4. ***Provide the date of loss of the insurance company data available for validation and verification of the model.***

The following hurricane data from different insurance companies are used to validate the different models of the project:

Andrew	1992
Charley	2004
Frances	2004

5. Provide an assessment of uncertainty in loss costs for output ranges using confidence intervals or other accepted scientific characterizations of uncertainty.

While the model does not automatically produce confidence intervals for the output ranges, the data does allow for the calculation of confidence intervals. The mean and the standard deviation of the losses are calculated for each county and found that the standard errors are within less than 2.5% of the means for all counties. We have calculated the coefficient of variation (CV) for all counties and drew a histogram which is provided in Figure 48. We noticed that the range of the CVs is found to be (2.98 to 5.22). The Bootstrap 95% confidence interval for the true CV is found to be between 3.74 and 4.01. The width of the interval is 0.27.

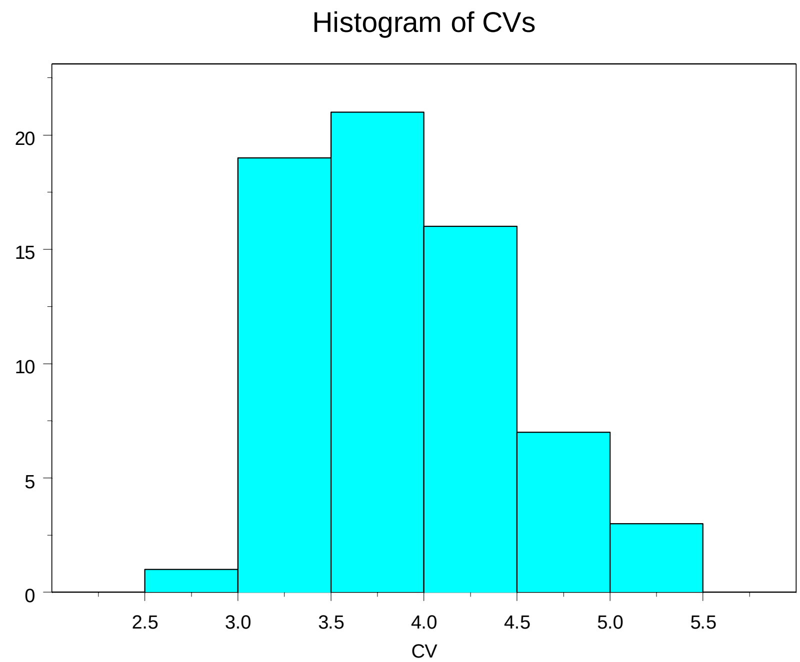


Figure 48. Histogram of the CVs for county wise losses

6. ***Provide graphical comparisons of modeled and historical data and goodness-of-fit tests. Examples include hurricane frequencies, tracks, intensities, and physical damage***

For hurricane frequencies as a function of intensity by region, see Form M1 plots and goodness of fit table. Moreover, the following histogram (Figure 49) compares the modeled and historical annual landfall distribution. The agreement between the two distributions is quite close and shows a good fit.

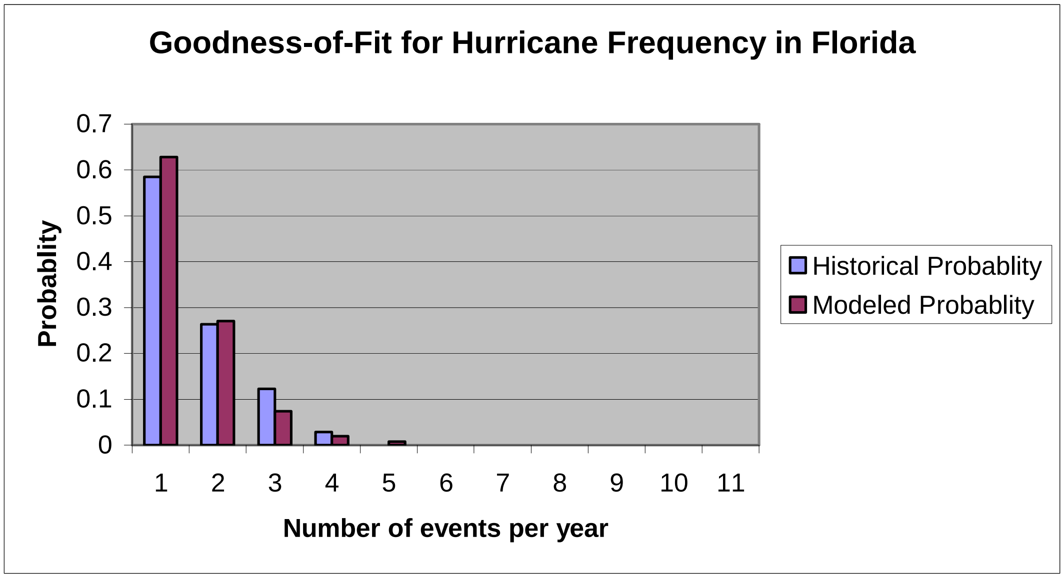


Figure 49. Modeled vs. historical probabilities

Two sample Kolmogorov-Smirnov Test gives `KS = 0.0909, P-value = 1.00`, which shows a very good fit. For KS goodness of fit test, we refer Conover (1999) among others. The histogram supported the KS test procedure.

1. ***Provide a completed Form S-1, Probability of Hurricanes per Year.***

See the completed S-1 form at the end of this section.

2. ***Provide a completed Form S-2, Probable Maximum Loss.***

See completed form S-2 at the end of this section.

S-2 Sensitivity Analysis for Model Output

The modeler shall have assessed the sensitivity of temporal and spatial outputs with respect to the simultaneous variation of input variables using currently accepted scientific and statistical methods and have taken appropriate action.

We have assessed the sensitivity of temporal and spatial outputs with respect to the simultaneous variation of input variables using currently accepted scientific and statistical methods.

Disclosures

1. ***Provide a detailed explanation of the sensitivity analyses that have been performed on the model above and beyond those completed for the original submission of Form S-5 and provide specific results. (Requirement for modeling organizations that have previously provided the Commission with Form S-5. This disclosure can be satisfied with an updated Form S-5 that incorporates changes to the model since the previous submission of the Form).***

Since this is our first submission, sensitivity analysis has been limited to Form S-5. The following input variables were used.

- CP = central pressure (in millibars)
- Rmax = radius of maximum winds (in statute miles)
- VT = translational velocity (forward speed in miles per hour)
- Holland B pressure profile parameter

2. ***Provide a description of the statistical methods used to perform the sensitivity analysis.***

We have followed the procedures as described in the paper “Assessing Hurricane Effects. Part 1. Sensitivity Analysis,” by Ronald L. Iman, Mark E. Johnson, and Tom Schroeder (2000a).

3. ***Identify the most sensitive aspect of the model and the basis for making this determination. Provide a full discussion of the degree to which these sensitivities affect output results and illustrate with an example.***

For the sensitivity analysis, some selected graphs of the standardized regression coefficients vs time and for Category 1, 3 and 5 hurricanes are provided in Figure 50- Figure 52. From these graphs, we observed that the maximum sustained surface wind speed (MSSWS) is most sensitive to Rmax parameter followed by VT, Holland B and CP. At hour 0, MSSWS is the most sensitive to Rmax, where as at hour 12, MSSWS is the most sensitive to VT. We also noticed that the sensitivity of MSSWS depends on the time, grid points and the category of hurricanes.

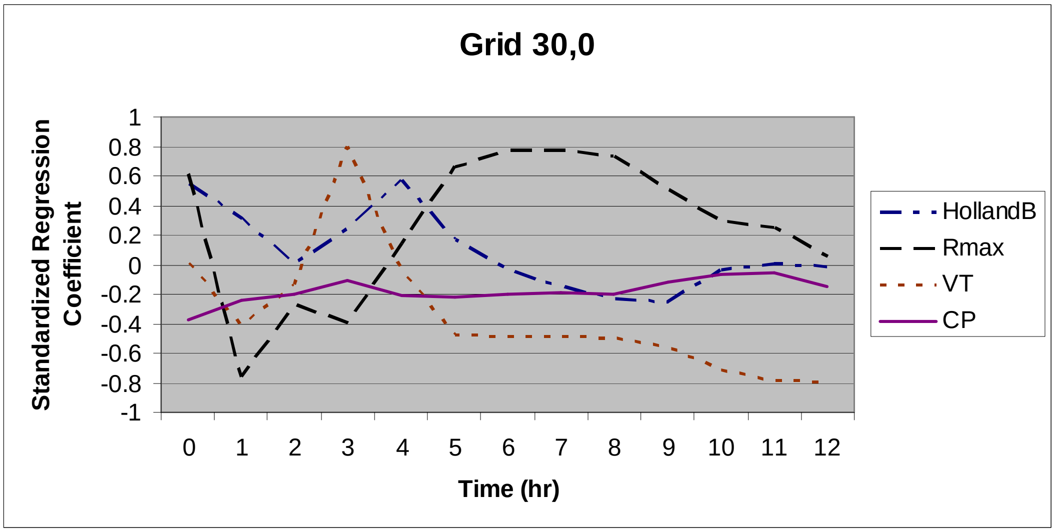


Figure 50. Standardized Regression Coefficients vs. Time at Grid Coordinates (30,0) for Category 1

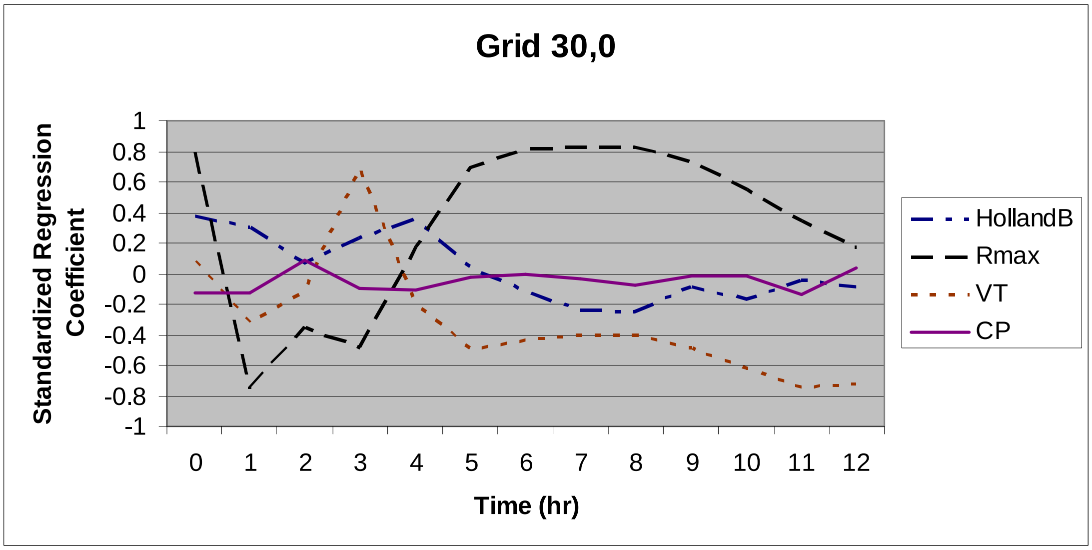


Figure 51. Standardized Regression Coefficients vs. Time at Grid Coordinates (30,0) for Category 3

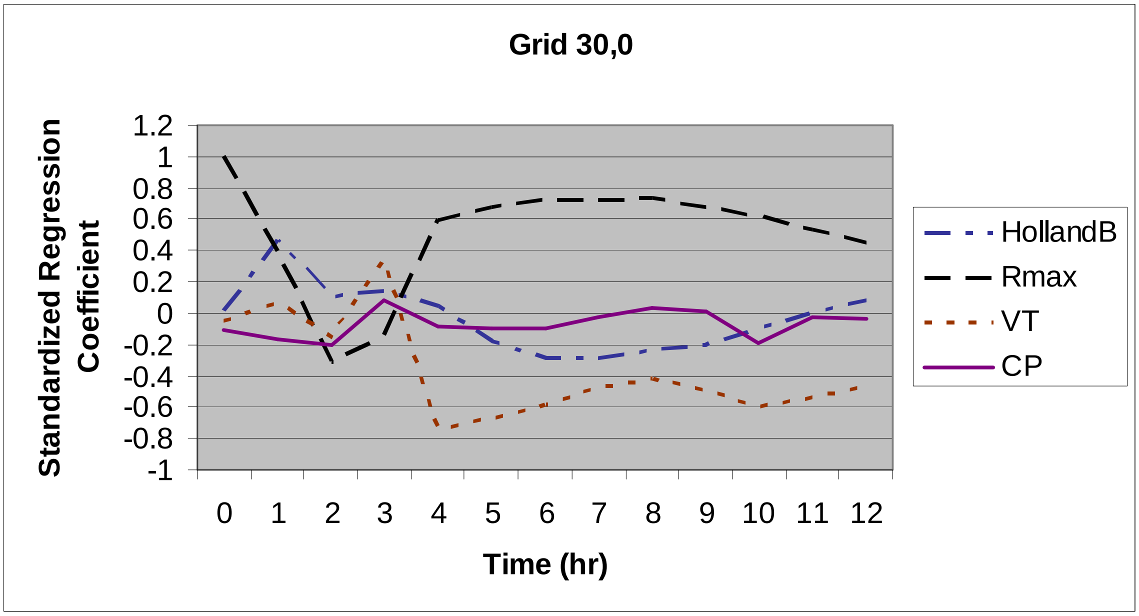


Figure 52. Standardized Regression Coefficients vs. Time at Grid Coordinates (30,0) for Category 5

4. ***Describe how other aspects of the model may have a significant impact on the sensitivities in output results and the basis for making this determination*.**

Validation studies (described in Standard S1-3) indicated that air density, boundary layer height, fraction of the boundary layer depth over which the turbulent stresses act, the drag coefficient, the averaging time chosen to represent the boundary layer slab winds, and the reduction factor to adjust slab winds to the surface all have a significant effect on the output results. These quantities were evaluated during the validation process, resulting in the selection of physically consistent values. For example, the values chosen for air density, marine boundary layer height , and reduction factor from the mean boundary layer to the surface are representative of near surface GPS dropsonde measurements in hurricanes.

Model wind speeds are very sensitive to zip code roughness, which in turn depend on land use/land cover determined from satellite remote sensing, and the assignment of roughness to mean land use / land cover classifications as well as the upstream filtering or weighting factor applied to integrate the upstream roughness elements within a 45 degree sector to windward of the zip code. When zip codes are updated to reflect annual changes and population centroids are updated, the roughness table is also updated. Zip code location changes will generate different wind speeds. Experiments with different land use land cover filtering factors suggest that extending the filtering further upstream has the effect of a small reduction in roughness at Florida zip codes (probably due to proximity to the coast or smoother Everglades areas) with slightly higher wind speeds. However, loss cost sensitivity was found to be small (~ $0.24B).

5. ***Describe actions taken in light of the sensitivity analyses performed***.

Not applicable

6. ***Provide a completed Form S-5, Hypothetical Events for Sensitivity and Uncertainty Analysis (requirement for models submitted by modeling organizations which have not previously provided the Commission with this analysis).***

See the completed S5 form at the end of this section.

S-3 Uncertainty Analysis for Model Output

The modeler shall have performed an uncertainty analysis on the temporal and spatial outputs of the model using currently accepted scientific and statistical methods and have taken appropriate action. The analysis shall identify and quantify the extent that input variables impact the uncertainty in model output as the input variables are simultaneously varied.

We have performed an uncertainty analysis on the temporal and spatial outputs of the model using currently accepted scientific and statistical methods.

Disclosures

1. ***Provide a detailed explanation of the uncertainty analyses that have been performed on the model above and beyond those completed for the original submission Form S-5 and provide specific results. (Requirement for modeling organizations that have previously provided the Commission with Form S-5. This disclosure can be satisfied with an updated Form S-5 that incorporates changes to the model since the previous submission of the Form).***

Since this is our first submission, uncertainty analysis has been limited to Form S-5. The following input variables were used.

- CP = central pressure (in millibars)
- Rmax = radius of maximum winds (in statute miles)
- VT = translational velocity (forward speed in miles per hour)
- Holland B pressure profile parameter

2. ***Provide a description of the statistical methods used to perform the uncertainty analysis.***

We have followed the procedures as described in the paper "Assessing Hurricane Effects. Part 2. Uncertainty Analysis," by Ronald L. Iman, Mark E. Johnson, and Tom Schroeder (2000b).

3. ***Identify the major contributors to the uncertainty in model outputs and the basis for making this determination. Provide a full discussion of the degree to which these uncertainties affect output results and illustrate with an example***.

Expected Percentage Reductions in the variance of Maximum Sustained Surface Wind Speed (MSSWS) for Category 1, 3 and 5 Hurricanes versus Time at Coordinate (30,0) are presented in Figure 53 –Figure 55. The major contribution to the uncertainty in the model is R-max followed by VT, Holland B and CP. At hour 0, Rmax produces the most uncertainty and at hour 12 VT contributed the highest uncertainty in the model. It is also noted that at hour 2 there is no uncertainty among the four parameters except VT.

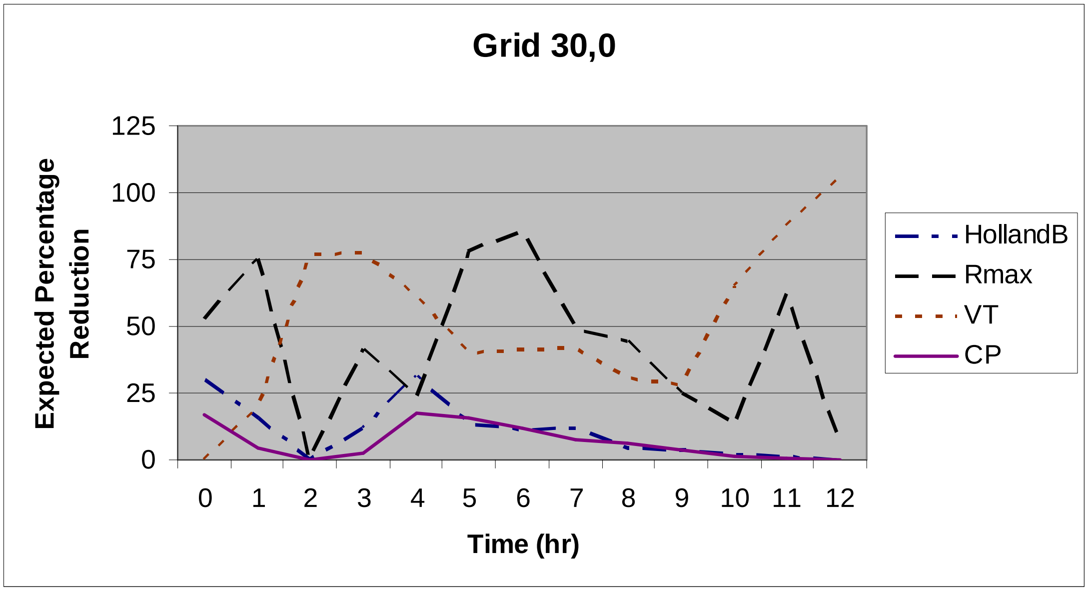


Figure 53. Expected Percentage Reductions in the Var(MSSWS) for a Category 1 Hurricane versus Time at Coordinate (30,0)

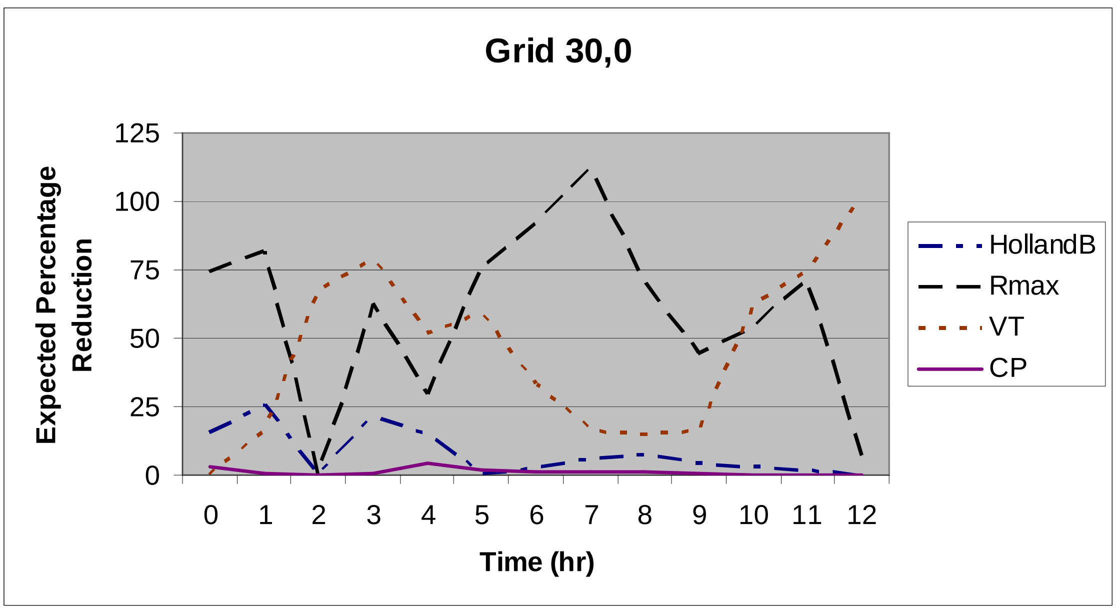


Figure 54. Expected Percentage Reductions in the Var(MSSWS) for a Category 3 Hurricane versus Time at Coordinate (30,0)

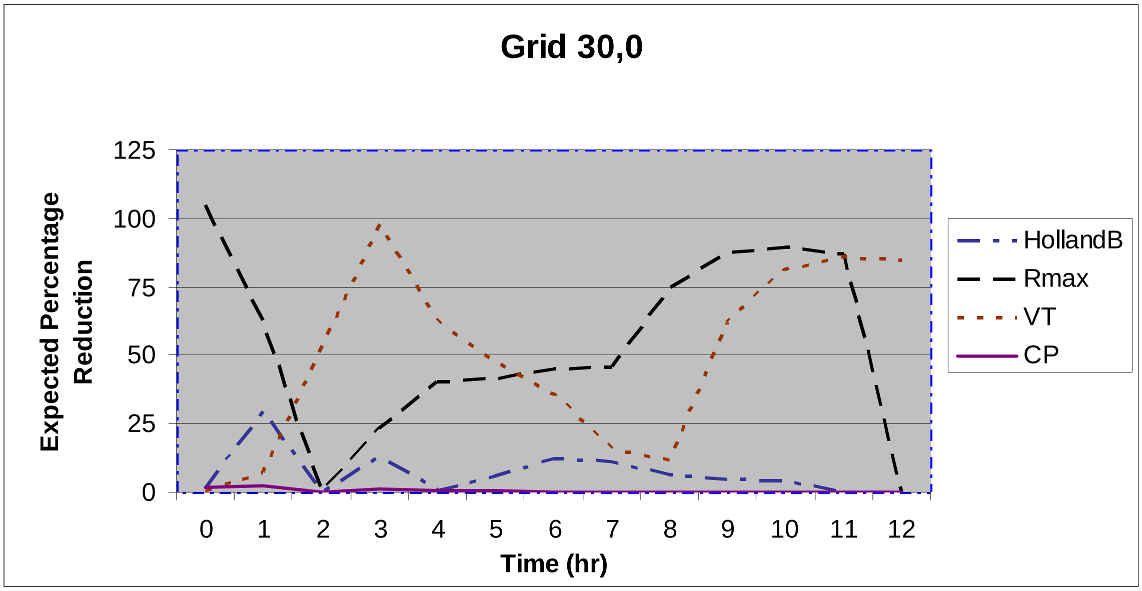


Figure 55. Expected Percentage Reductions in the Var(MSSWS) for a Category 5 Hurricane versus Time at Coordinate (30,0)

4. ***Describe how other aspects of the model may have a significant impact on the uncertainties in output results and the basis for making this determination*.**

Limitations in the HURDAT record contribute to the uncertainty of modeled tracks and pressures. Surface pressure measurements are not always available in HURDAT and estimating surface pressures by pressure-wind relationships are also fraught with uncertainty since well-observed hurricanes can demonstrate a large variation in maximum wind speeds for a given minimum surface pressure. The HURDAT record prior to the advent of satellites in the mid 1960s probably missed many hurricanes that affected Florida in the early 20th century. There is still considerable uncertainty in the assessment of hurricane intensity, even today. Recent preliminary research results based on SFMR measurements indicate that some Saffir-Simpson 1-3 Category hurricanes may be rated too high while the Category 4 and 5 storms are probably rated accurately.

Uncertainty in zip code roughness has a significant impact on wind uncertainty. For a given zip code, changing the zip code roughness tables from 2004 to 2006 demonstrated some instances of large changes in roughness for the same zip code for specific upstream flow directions. This is due to a shift in the zip code population-weighted centroid location, and a resulting incorporation of different upstream land use / land cover elements.

5. ***Describe actions taken in light of the uncertainty analyses performed*.**

Not applicable

6. ***For models submitted by modeling organizations, which have not previously provided this analysis to the Commission, Form S-5 was disclosed under Standard S-2 and will be used in the verification of Standard S-3.***

Complete form S5 has been presented at the end of this section**.**

S-4 County Level Aggregation*

At the county level of aggregation, the contribution to the error in loss cost estimates attributable to the sampling process shall be negligible.

The error in the county level loss costs induced by the sampling process can be quantified by computing standard errors for the county level loss costs. These loss costs have been computed for all counties in the state of Florida using 50,000 years of simulation. The results indicate that the standard errors are less than 2.5% of the average loss cost estimates for all counties.

Disclosures

3. ***Describe the sampling plan used to obtain the average annual loss costs and output ranges. For a direct Monte Carlo simulation, indicate steps taken to determine sample size. For an importance sampling design, describe the underpinnings of the design.***

The number of simulation runs was determined through the following process:

The average loss cost, $\overline{X}_Y$, and standard deviation s_Y, was determined for each county Y using an initial run of 10,600 simulations. Then the maximum error of estimate will be 2.5% of the estimated mean loss cost, if the number of simulation runs for county Y is:

$$N_Y = \left(\frac{s}{0.025 \times \overline{x}} \right)^2$$

Based on the initial 10,600 simulation runs, $\max_Y N_Y = 43526$ is obtained for Dixie County. Therefore, we have decided to use 50,000 years of simulation for our final results. From the 50,000 simulation runs two things are clear (a) the standard errors are less than 2.5% of the loss cost estimates for all counties (b) the optimal number of simulation is found to be 43526, which is less than 50,000.

S-5 Replication of Known Hurricane Losses

The model shall estimate incurred losses in an unbiased manner on a sufficient body of past hurricane events from more than one company, including the most current data available to the modeler. This Standard applies separately to personal residential and, to the extent data are available, to mobile homes. Personal residential experience may be used to replicate structure-only and contents-only losses. The replications shall be produced on an objective body of loss data by county or an appropriate level of geographic detail.

The following Table 20 compares the modeled and actual total losses by storm and company for residential coverage. Moreover, the following Figure 56 and Figure 57 indicate reasonable agreement between the observed and modeled losses (r=0.99, which indicates a strong positive correlation).

Disclosures

1. ***Describe the nature and results of the analyses performed to validate the loss projections generated by the model.***

For model validation purposes, the actual and modeled losses for some selected companies and hurricanes are provided in the Table 20.

Table 20. Actual vs. Model Loss

Company	Event	Exposure	Actual Loss	Actual Loss/Expo	Modeled Loss	Model Loss/Exp
A	Charley	9818982783	117664943	0.011983415	112974805.7	0.011505755
A	Frances	4419393539	20467905	0.004631383	61365405.63	0.013885481
B	Andrew	28625238943	2984373067	0.104256704	2557842943	0.089356213
B	Charley	55331829601	1036878576	0.018739279	726707284.3	0.013133621
B	Frances	37848571596	552366042	0.014594105	374804409.5	0.009902736
C	Charley	2046506161	64943930	0.031734051	35989252.55	0.017585704
C	Frances	7372090779	125028187	0.016959665	88316713.45	0.011979873
D	Charley	13635644553	258166394	0.018933201	225616653.9	0.016910973
D	Frances	8368320528	217156112	0.025949784	128389513.1	0.015342327
E	Charley	2960460500	62670760	0.021169261	56932038.06	0.019230805
E	Frances	1032863716	44410625	0.042997565	19413243.71	0.018795552
D	Charley_RCS	16700649043	179130119	0.010725938	163104363.1	0.009766349
D	Frances_RCS	8521947715	114715601	0.013461195	78964373.91	0.009266001
F	Charley	15294438720	117568896	0.007687036	304193876.6	0.019889182
F	Frances	15969634450	113227059	0.007090147	401301931.3	0.025129062
G	Charley	59609484	1180877	0.01981022	1003747.374	0.016838719
G	Frances	384480934	10306853	0.026807189	4178744.193	0.010868534
H	Charley	170044967	6968536	0.040980548	4016173.66	0.023618304
H	Frances	427982506	10153846	0.023724909	5397284.231	0.012610993
I	Charley	3610401198	55031023	0.015242357	50447898.84	0.013972934
I	Frances	3950558034	136515490	0.034556002	42702010.71	0.010809109
J	Charley	665183557	2015902	0.003030595	163006.475	0.000245055
J	Frances	1348805958	2659551	0.001971782	421008.2321	0.000312134
K	Charley	3431736788	109841182	0.032007461	19646080.2	0.005724821
K	Frances	4440649678	76704969	0.017273366	62047156.7	0.01397254

The following Figure 56 provides a comparison of total actual losses vs. total modeled losses by different hurricanes and Figure 57 provides a comparison of total actual loss ratios vs. modeled loss ratios by different hurricanes. The comparisons indicate a reasonable agreement between the actual and modeled losses. The correlation between actual and modeled losses is found to be 0.9855241, which indicates a very strong positive correlation between actual and modeled losses. The correlation between actual loss ratios and modeled loss ratios is found to be 0.8494610, which also indicate a strong positive correlation between actual and modeled loss ratios. Moreover, when we test the equality of two population means, both paired (t = 1.3396, df = 24, p-value = 0.1929) and independent t (t = 0.2241, df = 48, p-value = 0.8236) tests provide the evidence that the average actual and modeled losses are not statistically different. Two sample Kolmogorov-Smirnov Test gives, ks = 0.20, p-value = 0.7102, (for total losses) and ks = 0.32, p-value = 0.1558 (for ratios) which also showed an excellent fit.

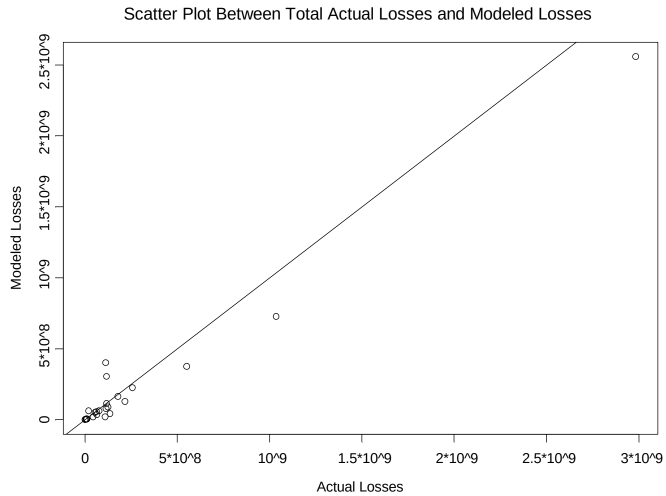


Figure 56. Scatter plot between Total Actual Losses vs. Total Modeled losses

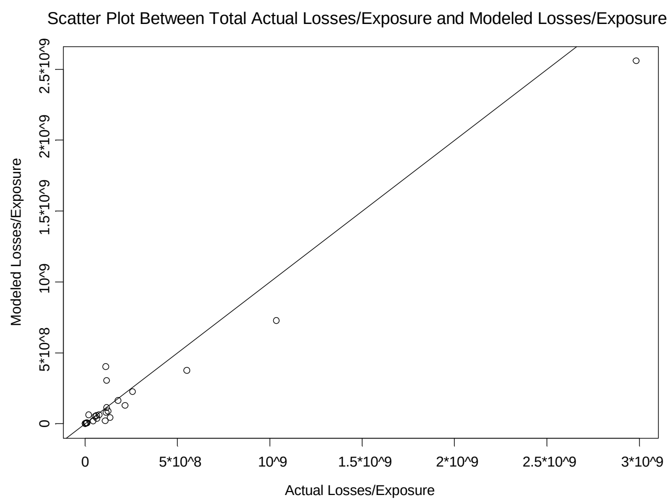


Figure 57. Scatter plot between Total Actual Loss/Exposure vs. Modeled Losses/Exposure

2. Provide a completed Form S-3, Five Validation Comparisons.

See Form S3

S-6 Comparison of Projected Hurricane Loss Costs

The difference, due to uncertainty, between historical and modeled annual average statewide loss costs shall be reasonable, given the body of data, by established statistical expectations and norms.

The difference, due to uncertainty, between historical and modeled annual average statewide loss costs is reasonable as shown in the following description.

Disclosures

1. ***Describe the nature and results of the tests performed to validate the expected loss projections generated. If a set of simulated hurricanes or simulation trials was used to determine these loss projections, specify the convergence tests that were used and the results. Specify the number of hurricanes or trials that were used.***

Loss costs are generated using a simulated body of hurricanes. The number of trials used in the simulations were calculated using Standard S-4, which is found to be 50000. The standard errors are within less than 2.5% of the means for all counties. Extensive validation tests for generated loss costs are not possible owing to a lack of a sufficient body of data. From form S4 we found that, the 95% confidence interval on the difference between the mean of the historical and modeled losses contains 0 indicating that the modeled losses do not differ significantly from historical losses. These forms show that FPHLM (V.2.6) losses are in good agreement with the historical losses. More on this topic, we refer to Tamhane and Dunlop (2000) among others.

2. ***Identify differences, if any, in how the model produces loss costs for specific historical events versus loss costs for events in the stochastic hurricane set.***

A specific historical event is treated in the scenario mode, in which the peak 3s gust wind speed at a zip code is associated with a particular level of damage to a specific types of structures that are the characteristic of that zip code. In stochastic mode, the damage is computed according to the probability of the 3s gust wind speed being within wind speed consecutive 5 mph wind speed bands.

3. ***Provide a completed Form S-4, Average Annual Zero Deductible Statewide Loss Costs – Historical versus Modeled.***

See Form S4

Form S-1: Probability of Florida Landfalling Hurricanes per Year

Complete the table below showing the probability of landfalling Florida hurricanes per year. Modeled probability should be rounded to four decimal places. The historical probabilities below have been derived from the Commission's Official Hurricane Set. If the National Hurricane Center's HURDAT or other hurricanes in addition to the Official Hurricane Set as specified in Standard M-1 are used by the modeler, then the historical probabilities should be modified accordingly. If the National Hurricane Center's HURDAT is used, provide the HURDAT revision date.

Model Results
Probability of Florida Landfalling Hurricanes per Year

Number Of Hurricanes Per Year	Historical Probability (Hurdat June 2006)	Modeled Probability
0	0.5849	0.6283
1	0.2641	0.2707
2	0.1226	0.0739
3	0.0283	0.0197
4	0.0000	0.0074
5	0.0000	0.0000
6	0.0000	0.0000
7	0.0000	0.0000
8	0.0000	0.0000
9	0.0000	0.0000
10 or more	0.0000	0.0000

Form S-2: Probable Maximum Loss (PML)

Provide projections of the insured loss for various probability levels using the hypothetical data set provided in the file named ***"FormA1Input06.xls."*** Provide the total average annual loss for the PML distribution. If the methodology of your model does not allow you to produce a viable answer, please state so and why.

Return Time (Years)	Probability of Exceedence	Estimated Loss
50000	0.002%	$93,307,068
10000	0.01%	$82,067,542
5000	0.02%	$76,368,077
2000	0.05%	$63,590,703
1000	0.10%	$56,608,972
500	0.20%	$50,810,848
250	0.40%	$44,251,651
100	1.00%	$35,642,660
50	2.00%	$28,800,618
20	5.00%	$19,107,086
10	10.00%	$11,438,730
5	20.00%	$4,237,769
Mean	$3,208,421	
Median	$0	
Standard Deviation	$7,446,414	
Interquartile Range	$2,107,227	
Sample Size	**50,000 years of simulated stroms**	

Form S-3: Five Validation and Comparison

A. Provide five validation comparisons of actual exposures and loss to modeled exposures and loss. These comparisons must be provided by line of insurance, construction type, policy coverage, county or other level of similar detail in addition to total losses. Include loss as a percent of total exposure. Total exposure represents the total amount of insured values (all coverages combined) in the area affected by the hurricane. This would include exposures for policies that did not have a loss. If this is not available, use exposures for only those policies that had a loss. Specify which was used. Also, specify the name of the hurricane event compared.

B. Provide scatter plot(s) of modeled vs. historical losses for each of the five validation comparisons. (Plot the historical losses on the x-axis and the modeled losses on the y-axis.) Rather than using directly a specific published hurricane wind field, the winds underlying the modeled loss cost calculations must be produced by the model being evaluated and should be the wind field most emulated by the model.

Comparison # 1: Hurricane Charley and Company A by Coverage

	Company Actual	Modeled	Difference
Coverage	Loss/Exposure	Loss/Exposure	
Building	0.01651	0.01616	0.00035
Contents	0.00295	0.00295	0.00000
Appurtenant	0.02479	0.01176	0.01302
ALE	0.00243	0.00206	0.00037
Total	0.01198	0.01151	0.00048

Comparison #2: Different Companies by Different Hurricanes

		Company Actual	Modeled	Difference
Company	Event	Loss/Exposure	Loss/Exposure	
A	Charley	0.01198	0.01151	0.00048
B	Andrew	0.10425	0.08935	0.01490
C	Frances	0.01696	0.01198	0.00498
D	Charley	0.01935	0.01691	0.00244
E	Charley	0.02117	0.01923	0.00194

Comparison #3: Company B by Hurricane Andrew, Charley, Frances

		Company Actual	Modeled	Difference
Company	Event	Loss/Exposure	Loss/Exposure	
B	Andrew	0.10425	0.08935	0.01490
B	Charley	0.01874	0.01313	0.00561
B	Frances	0.01459	0.00990	0.00469

Comparison #4: Construction Type for Company D and Hurricane Charley

	Company Actual	Modeled	Difference
Coverage	Loss/Exposure	Loss/Exposure	
Frame	0.01752	0.01634	0.00118
Masonry	0.01894	0.01259	0.00635
Manufactured	0.04466	0.04962	-0.00496

Comparison #5: County wise for Company A and Hurricane Charley

	Company Actual	Modeled	Difference
Coverage	Loss/Exposure	Loss/Exposure	
Lee	0.00660	0.00785	-0.00126
Orange	0.00968	0.01260	-0.00291
Manatee	0.00006	0.00000	0.00006
Collier	0.00064	0.00018	0.00046
Osceola	0.01248	0.01067	0.00181

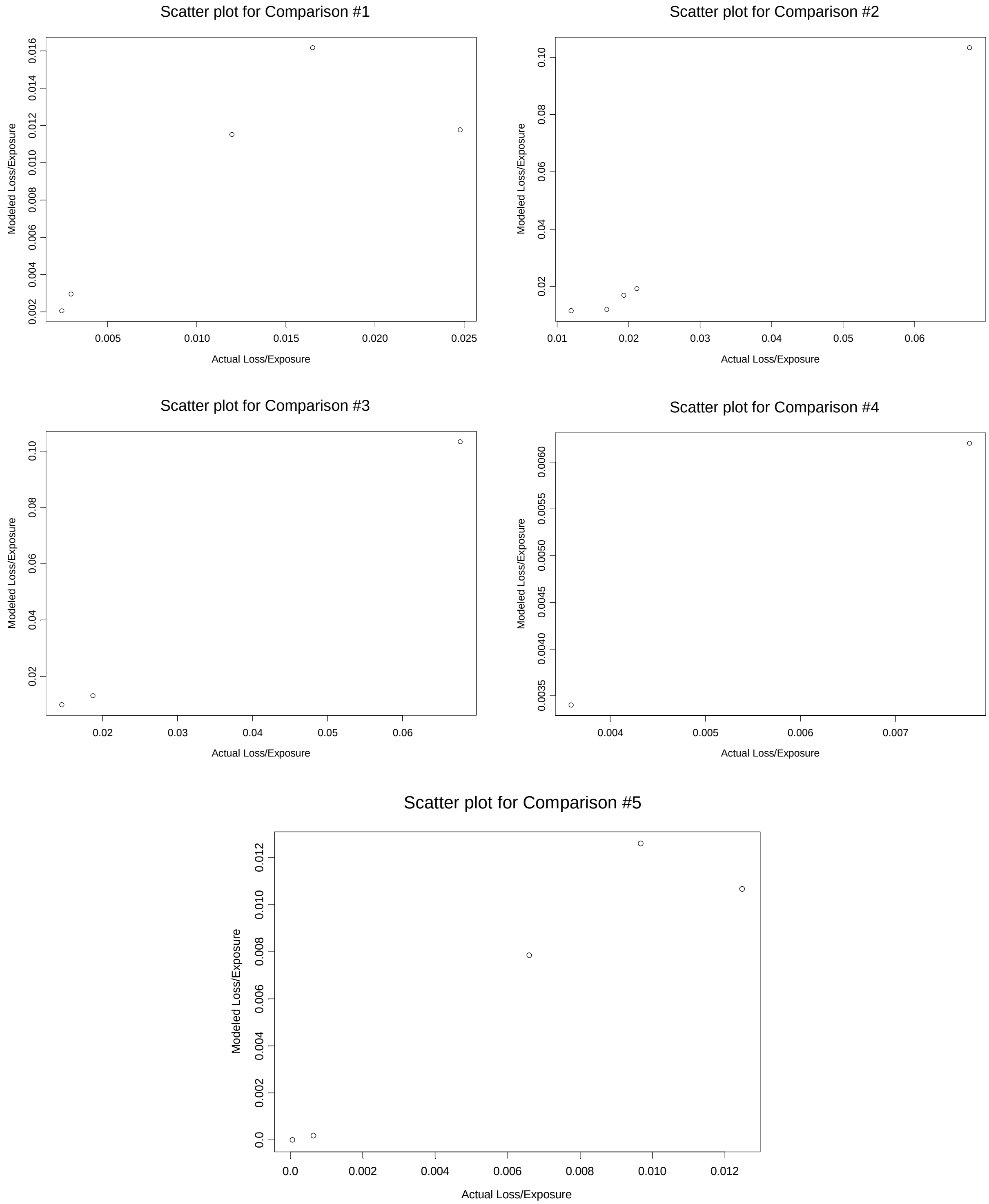


Figure 58. Scatter plots for Actual/exposure and Modeled loss/Exposure

Form S-4: Average Annual Zero Deductible Statewide Loss Costs – Historical versus Modeled

A. Provide the average annual zero deductible statewide loss costs produced using the list of hurricanes in the Base Hurricane Storm Set based on the 2002 Florida Hurricane Catastrophe Fund's aggregate personal residential exposure data, as of August 1, 2003 (hlpm2002.exe).

Average Annual Zero Deductible Statewide Loss Costs

Time period	Historical Hurricanes	Produced by Model
Current Year	**$2,804.47**	**$2,673.36**

B. Provide a comparison with the statewide loss costs produced by the model on an average industry basis.

The loss cost produced by the model on an average industry basis is 2.7 billion and the corresponding historical average loss is 2.8 billion.

C. Provide the 95% confidence interval on the differences between the mean of the historical and modeled loss.

The 95% confidence interval on the difference between the mean of the historical and the mean of the modeled losses is between -0.95 and 1.21. Since the interval contains 0, we are 95% confident that there is no significant difference between the historical and the modeled losses. Using Splus, we have also done statistical test of equality means using parametric test (z = 0.000000261and p-value = 0.9999 and t = 0.2381, df = 50104, p-value = 0.8118) and equality of CDFs using nonparametric test (KS = 0.0553, p-value = 0.9004). In both parametric and non-parametric cases, we have high p-values. Therefore, we may conclude that the average historical and modeled losses are not statistically different.

Form S-5: Hypothetical Events for Sensitivity and Uncertainty Analysis (requirement for new modeling companies which have not previously provided the Commission with this analysis)

We have provided the output in ASCII files based on running a series of hurricanes as provided in the Excel file ***"FormS5Input06.xls."*** The output files consist of wind speeds (in miles per hour for one minute sustained 10-meter winds) at hourly intervals over a 21×46 grid for the 500 combinations of initial conditions specified in the Excel file for the following model inputs:

- CP = central pressure (in millibars)
- Rmax = radius of maximum winds (in statute miles)
- VT = translational velocity (forward speed in miles per hour)
- Holland B pressure profile parameter for other input used by the modeler ($0 \leq p \leq 1$)

The value of CP, Rmax, VT and Quantile are used as direct inputs. Quantiles from 0 to 1 have been provided in the Excel input file.

For FPHLM (V2.6) model, we use first quantile input for the Holland B parameter. The specific values of the Holland B parameter that were used are given as follows:.

```
For output file FIU06FormS51SA.dat the following
input B were used by the model;

1.51 0.63 0.97 1.88 1.02 1.09 1.15 1.15 1.38 1.61 1.16 1.68 1.52 0.82
1.71 1.53 1.53 1.27 0.96 1.37 1.20 1.11 1.41 1.24 1.75 1.86 1.73 1.28
0.89 1.69 2.00 1.45 1.43 1.28 1.82 1.13 1.55 1.47 1.44 1.41 1.43 1.34
1.81 1.24 1.91 1.46 1.77 1.61 1.38 1.17 1.64 1.26 1.36 1.22 1.65 1.06
1.54 1.39 1.05 1.45 1.32 1.51 1.19 1.26 1.23 1.49 1.31 1.56 2.06 1.33
1.80 1.33 1.35 1.60 1.29 1.67 1.74 1.21 1.59 1.30 1.41 1.30 1.10 1.50
1.48 0.82 1.12 1.57 1.40 1.23 1.08 0.93 1.00 1.03 1.56 1.63 1.65 1.47
1.18 1.36



For output FIU06FormS51UACP.dat the following
input B were used by the model: 1.39
For output FIU06FormS51UARmax.dat the following
input B were used by the model;1.39
For output FIU06FormS51UAVT.dat the following
input B were used by the model;1.39

For output FIU06FormS51UAQuantile1.dat the following
input B were used by the model;

1.51 0.63 0.97 1.88 1.02 1.09 1.15 1.15 1.38 1.61 1.16 1.68 1.52 0.82
1.71 1.53 1.53 1.27 0.96 1.37 1.20 1.11 1.41 1.24 1.75 1.86 1.73 1.28
0.89 1.69 2.00 1.45 1.43 1.28 1.82 1.13 1.55 1.47 1.44 1.41 1.43 1.34
1.81 1.24 1.91 1.46 1.77 1.61 1.38 1.17 1.64 1.26 1.36 1.22 1.65 1.06
```

1.54 1.39 1.05 1.45 1.32 1.51 1.19 1.26 1.23 1.49 1.31 1.56 2.06 1.33
1.80 1.33 1.35 1.60 1.29 1.67 1.74 1.21 1.59 1.30 1.41 1.30 1.10 1.50
1.48 0.82 1.12 1.57 1.40 1.23 1.08 0.93 1.00 1.03 1.56 1.63 1.65 1.47
1.18 1.36

For output file FIU06FormS53SA.dat the following
input B were used by the model;

1.18 1.39 1.78 1.48 1.24 1.50 1.63 1.08 1.70 1.44 1.13 1.27 1.20 1.06
1.53 1.31 1.45 0.87 1.60 1.05 1.61 1.02 1.19 1.84 1.75 1.39 1.55 0.71
1.56 1.38 1.23 1.47 1.80 1.22 1.41 1.35 1.41 1.32 1.66 1.52 1.00 1.40
1.61 1.68 1.48 1.11 0.90 2.00 1.02 1.14 1.88 1.33 1.73 1.58 1.43 1.46
1.43 1.57 1.42 0.83 1.93 1.51 1.46 1.16 1.13 0.75 1.85 1.34 0.96 1.77
1.20 1.30 0.95 1.53 1.25 1.07 1.29 1.71 1.15 1.42 1.64 1.54 1.58 1.95
1.25 1.37 1.23 1.17 1.28 1.72 1.26 1.35 1.51 1.30 1.09 1.34 1.36 1.28
1.64 1.67

For output FIU06FormS53UACP.dat the following
input B were used by the model:1.39
For output FIU06FormS53UARmax.dat the following
input B were used by the model;1.39
For output FIU06FormS53UAVT.dat the following
input B were used by the model;1.39

For output FIU06FormS53UAQuantile1.dat the following
input B were used by the model;

1.18 1.39 1.78 1.48 1.24 1.50 1.63 1.08 1.70 1.44 1.13 1.27 1.20 1.06
1.53 1.31 1.45 0.87 1.60 1.05 1.61 1.02 1.19 1.84 1.75 1.39 1.55 0.71
1.56 1.38 1.23 1.47 1.80 1.22 1.41 1.35 1.41 1.32 1.66 1.52 1.00 1.40
1.61 1.68 1.48 1.11 0.90 2.00 1.02 1.14 1.88 1.33 1.73 1.58 1.43 1.46
1.43 1.57 1.42 0.83 1.93 1.51 1.46 1.16 1.13 0.75 1.85 1.34 0.96 1.77
1.20 1.30 0.95 1.53 1.25 1.07 1.29 1.71 1.15 1.42 1.64 1.54 1.58 1.95
1.25 1.37 1.23 1.17 1.28 1.72 1.26 1.35 1.51 1.30 1.09 1.34 1.36 1.28
1.64 1.67

For output file FIU06FormS55SA.dat the following
input B were used by the model;

1.00 1.70 1.23 1.75 1.45 1.51 1.16 1.52 1.47 1.40 1.13 1.39 1.56 1.10
1.01 1.62 1.29 1.72 0.81 1.58 1.56 1.18 1.19 1.55 1.33 1.26 1.35 1.34
1.36 1.48 1.49 1.37 1.22 1.27 0.93 1.61 1.27 1.73 1.64 1.19 1.24 1.90
1.28 1.61 1.53 1.87 1.66 1.53 1.32 1.37 1.65 1.17 1.31 1.05 1.43 0.50
1.25 1.33 1.51 1.78 1.35 1.68 1.38 1.28 1.54 1.70 1.49 0.97 1.42 1.08
0.83 1.40 1.58 0.88 1.30 1.31 1.48 1.12 1.76 1.11 1.14 1.16 1.91 1.43
1.84 1.41 1.04 1.21 1.06 1.09 1.60 1.21 1.95 0.95 1.44 1.44 1.45 1.81
1.95 1.63

For output FIU06FormS55UACP.dat the following
input B were used by the model:1.39
For output FIU06FormS55UARmax.dat the following
input B were used by the model;1.39
For output FIU06FormS55UAVT.dat the following
input B were used by the model;1.39

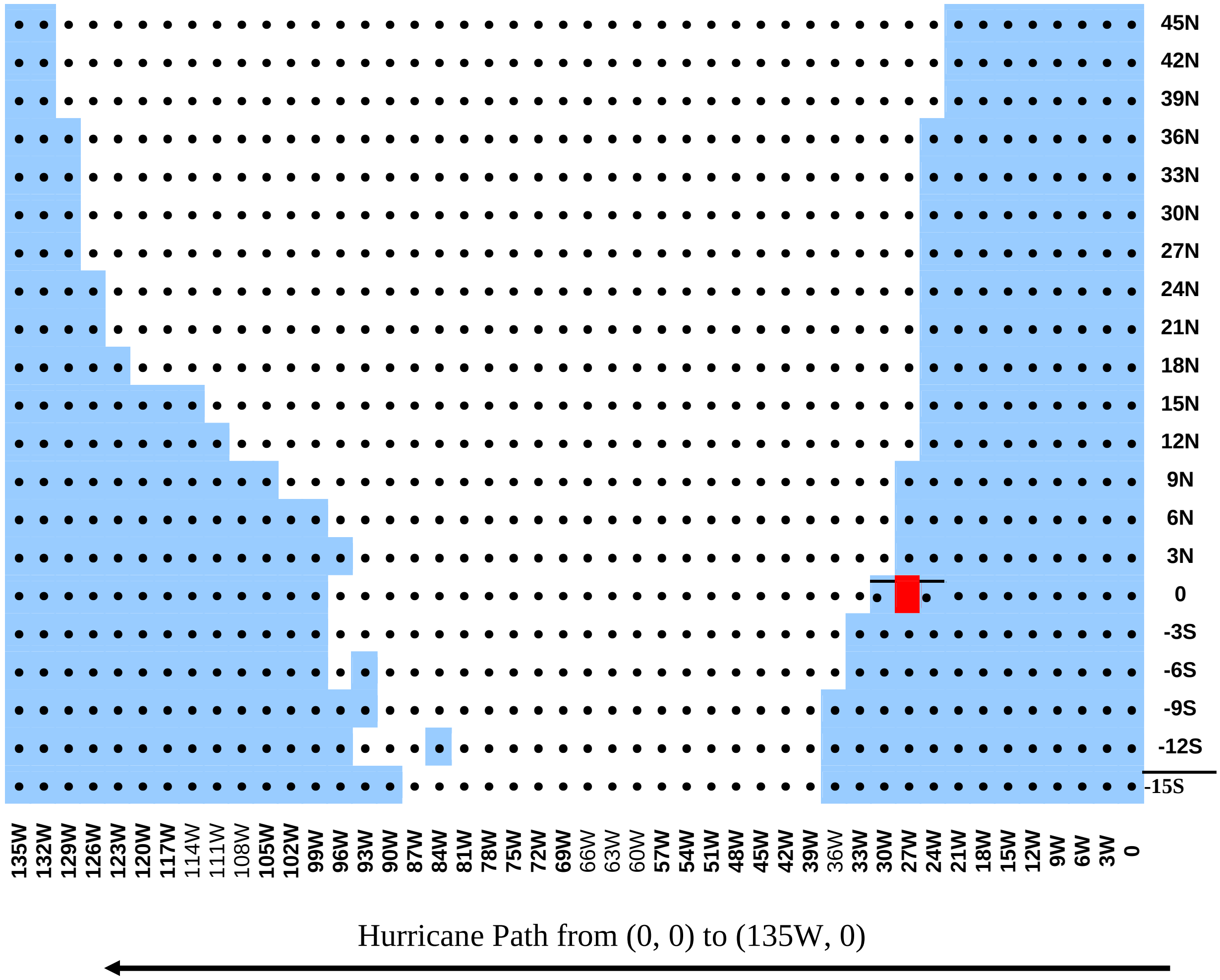
```
For output FIU06FormS55UAQuantile1.dat the following
input B were used by the model;

1.00 1.70 1.23 1.75 1.45 1.51 1.16 1.52 1.47 1.40 1.13 1.39 1.56 1.10
1.01 1.62 1.29 1.72 0.81 1.58 1.56 1.18 1.19 1.55 1.33 1.26 1.35 1.34
1.36 1.48 1.49 1.37 1.22 1.27 0.93 1.61 1.27 1.73 1.64 1.19 1.24 1.90
1.28 1.61 1.53 1.87 1.66 1.53 1.32 1.37 1.65 1.17 1.31 1.05 1.43 0.50
1.25 1.33 1.51 1.78 1.35 1.68 1.38 1.28 1.54 1.70 1.49 0.97 1.42 1.08
0.83 1.40 1.58 0.88 1.30 1.31 1.48 1.12 1.76 1.11 1.14 1.16 1.91 1.43
1.84 1.41 1.04 1.21 1.06 1.09 1.60 1.21 1.95 0.95 1.44 1.44 1.45 1.81
1.95 1.63
```

The Excel input file contains 500 (or 600) combinations of initial conditions for each of three categories of hurricanes (1, 3, and 5), which follow a straight due west track passing through the point (25.7739N, 80.1300W). These hurricanes are similar to those in Form A-1, event ID 11, 13 and 15. The first 100 combinations of initial conditions for hurricane categories 1, 3 and 5 are used in sensitivity analysis calculations. These initial conditions are given in the first worksheet (Sen Anal all Variables) of the Excel input file. The second set of 100 initial conditions for hurricane categories 1, 3 and 5 are given in the second worksheet (Unc Anal for CP) in the Excel input file. These conditions will be used in the uncertainty analysis for CP. The third worksheet (Unc Anal for Rmax), fourth worksheet (Unc Anal for VT) and fifth worksheet (Unc Anal for Quantile 1 are similar to the second worksheet and are used for performing uncertainty analysis for Rmax, VT and the input variable corresponding to the given quantiles, respectively. We have also provided the maximum wind speed produced over the 12 hours for each category of hurricanes 1, 3 and 5.

The 21×46 grid of coordinates uses approximate 3 statute mile spacing and is depicted in *Figure 6 of ROA* for all three hurricane categories. For purposes of hurricane decay, the modeler is instructed to use existing terrain consistent with the grid in *Figure 6 of ROA*.

The point (0, 0) is the location of the center of the hurricane at time 0, and is 30 miles east of the landfall location (25.7739N, 80.1300W), identified by the red rectangle in *Figure 6 of ROA*. The exact latitudes and longitudes for the 966 vertices in the grid (21×46) are given in the seventh worksheet of the Excel input file.

Figure 6 of ROA



We have provided output on CD-ROM in ASCII and PDF format. Five output files provided for each of the three hurricane categories. These files shall be named as shown in *Figure 7 of ROA*:

Figure 7 of ROA

Summary of Form S-5 Input and Output Files*

Hurricane Category	Input Values given in FormS5Input06.xls file	Output File	Modeler Wind Speed Output File Name
1	Sensitivity Analysis all Variables	1	XXX06FormS51SA.dat
	Uncertainty Analysis CP	2	XXX06FormS51UACP.dat
	Uncertainty Analysis Rmax	3	XXX06FormS51UARmax.dat
	Uncertainty Analysis VT	4	XXX06FormS51UAVT.dat
	Uncertainty Analysis Quantile	5	XXX06FormS51UAQuantile1.dat
3	Sensitivity Analysis all Variables	6	XXX06FormS53SA.dat
	Uncertainty Analysis CP	7	XXX06FormS53UACP.dat
	Uncertainty Analysis Rmax	8	XXX06FormS53UARmax.dat
	Uncertainty Analysis VT	9	XXX06FormS53UAVT.dat
	Uncertainty Analysis Quantile	10	XXX06FormS53UAQuantile1.dat
5	Sensitivity Analysis all Variables	11	XXX06FormS55SA.dat
	Uncertainty Analysis CP	12	XXX06FormS55UACP.dat
	Uncertainty Analysis Rmax	13	XXX06FormS55UARmax.dat
	Uncertainty Analysis VT	14	XXX06FormS55UAVT.dat
	Uncertainty Analysis Quantile	15	XXX06FormS55UAQuantile1.dat

Each of the files will contain 96,600 lines (100×21×46 = 96,600), each written according to the format (3I5,14F6.1).

Each row in the output files should contain the following values:

1. Sample number (1-100)
2. E-W Grid Coordinate (0, 3, 6, 9, 12, 15, …, 135)
3. N-S Grid Coordinate (-15, -12, -9, -6, -3, 0, 3, 6, 9, …, 45)
4. Wind speed at time 0hr
5. Wind speed at time 1hr
6. Wind speed at time 2hr
7. Wind speed at time 3hr
8. Wind speed at time 4hr
9. Wind speed at time 5hr
10. Wind speed at time 6hr
11. Wind speed at time 7hr
12. Wind speed at time 8hr
13. Wind speed at time 9hr
14. Wind speed at time 10hr
15. Wind speed at time 11hr
16. Wind speed at time 12hr
17. Maximum wind speed*

*This is the maximum wind speed overall, if produced. Otherwise, provide the maximum wind speed over the 13 time points.

For the sensitivity analysis, some selected graphs of the standardized regression coefficients vs time and for Category 1, 3 and 5 hurricanes are provided in Figure 59 - Figure 67. The calculations of the SRCs are explained on page 22 of the *Professional Team Demonstration Uncertainty/Sensitivity Analysis* by R.L. Iman, M.E. Johnson and T.A. Schroeder, September 2001. From these graphs, we observed that the maximum sustained surface wind speed (MSSWS) is most sensitive to Rmax parameter followed by VT, Holland B and CP. At hour 0, MSSWS is the most sensitive to Rmax, where as at hour 12, MSSWS is the most sensitive to VT. We also noticed that the sensitivity of MSSWS depends on the grid points, time and hurricane category.

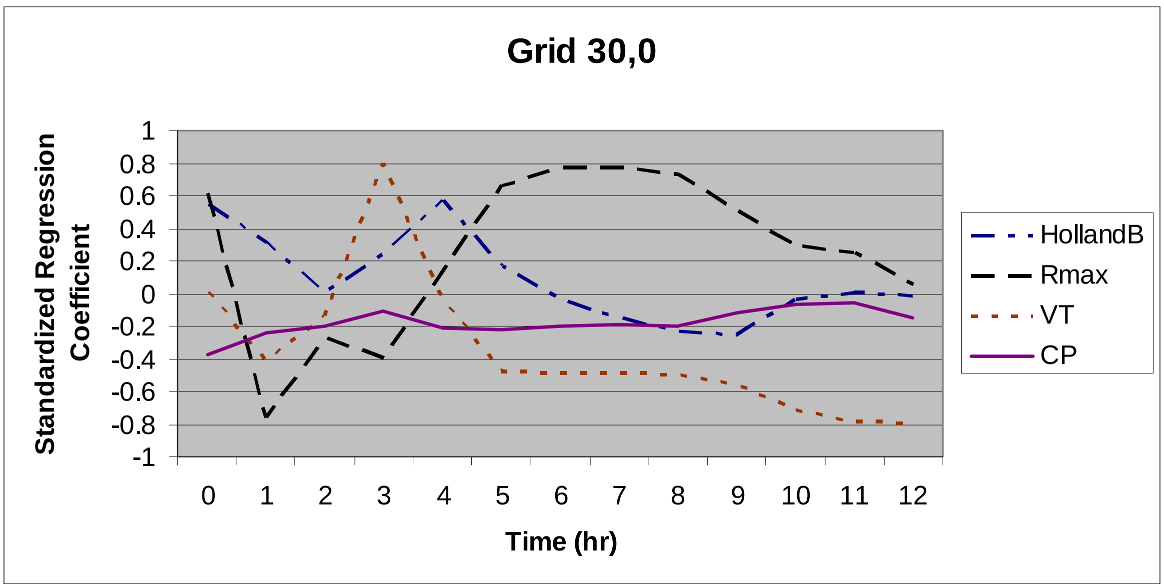


Figure 59. Standardized Regression Coeffs vs. Time at Grid Coordinates (30,0) for Category 1

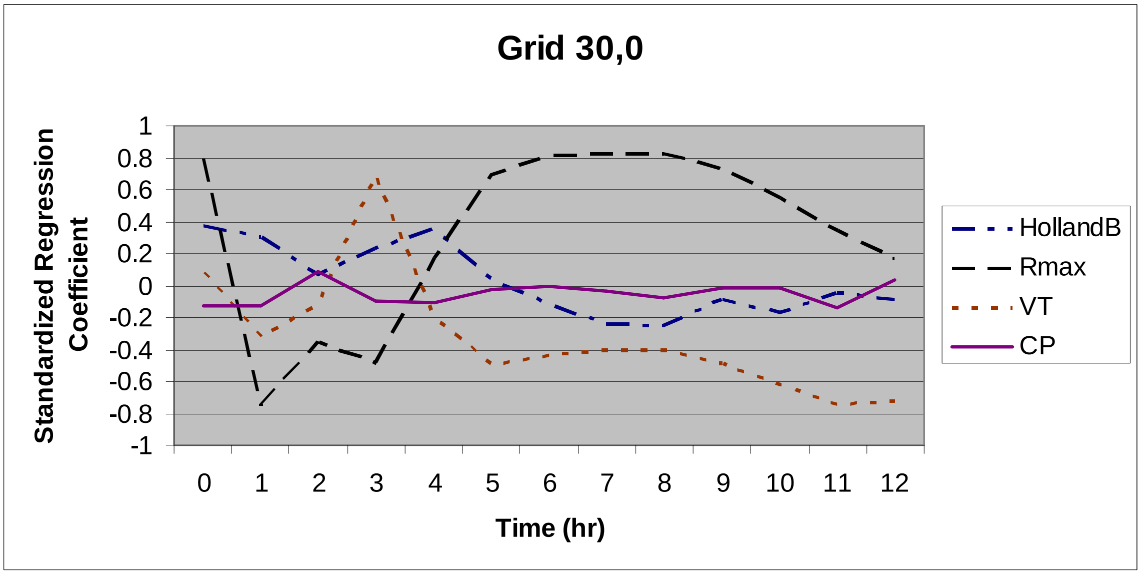


Figure 60. Standardized Regression Coeffs vs. Time at Grid Coordinates (30,0) for Category 3

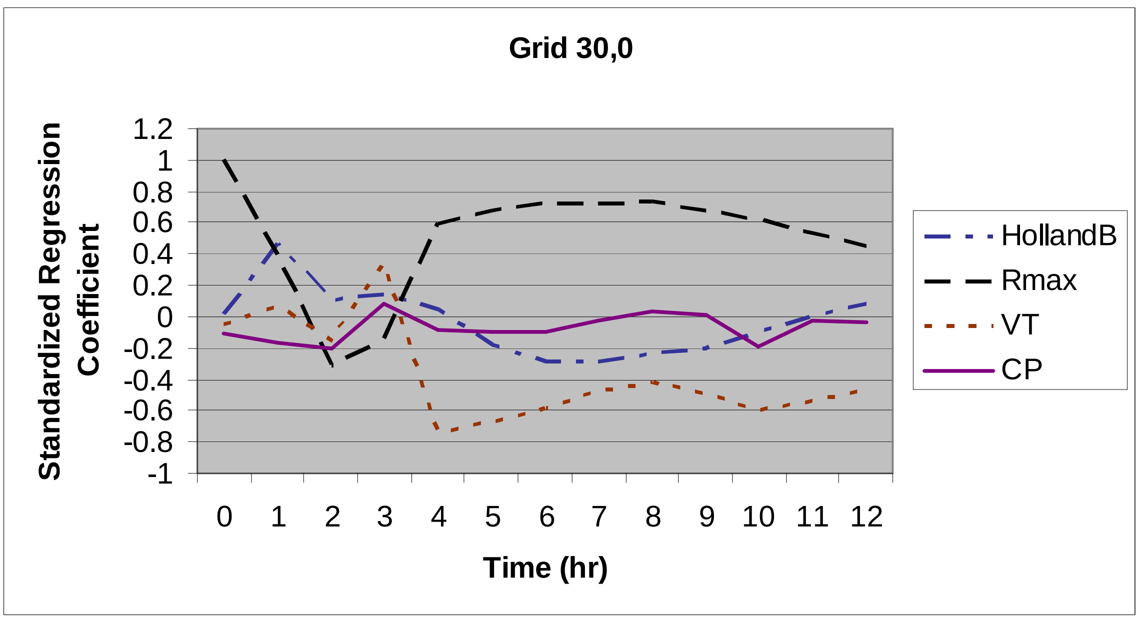


Figure 61. Standardized Regression Coeffs vs. Time at Grid Coordinates (30,0) for Category 5

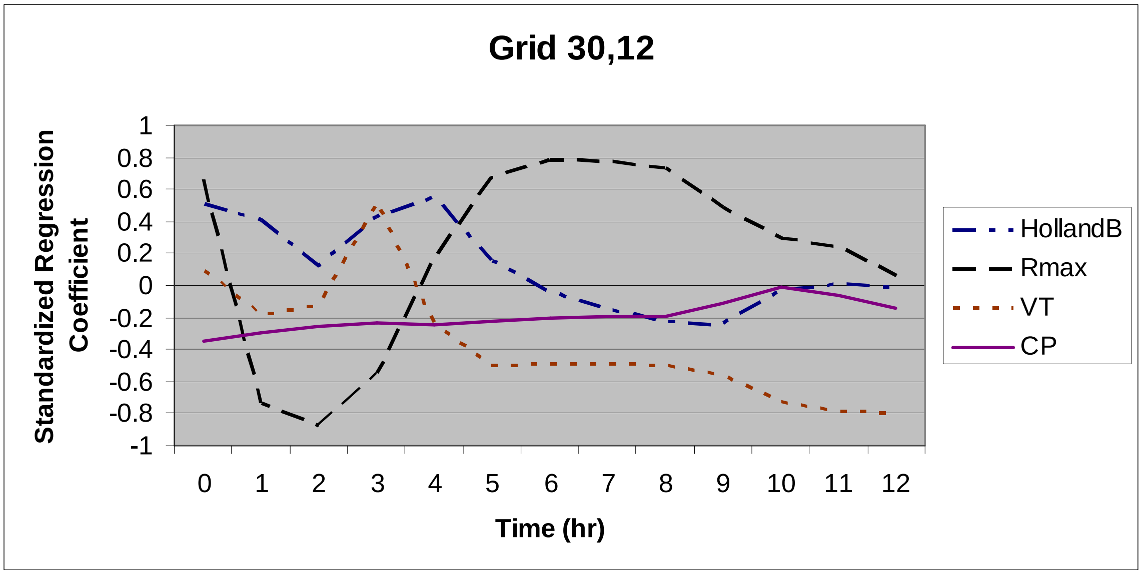


Figure 62. Standardized Regression Coeffs vs. Time at Grid Coordinates (30,12) for Category 1

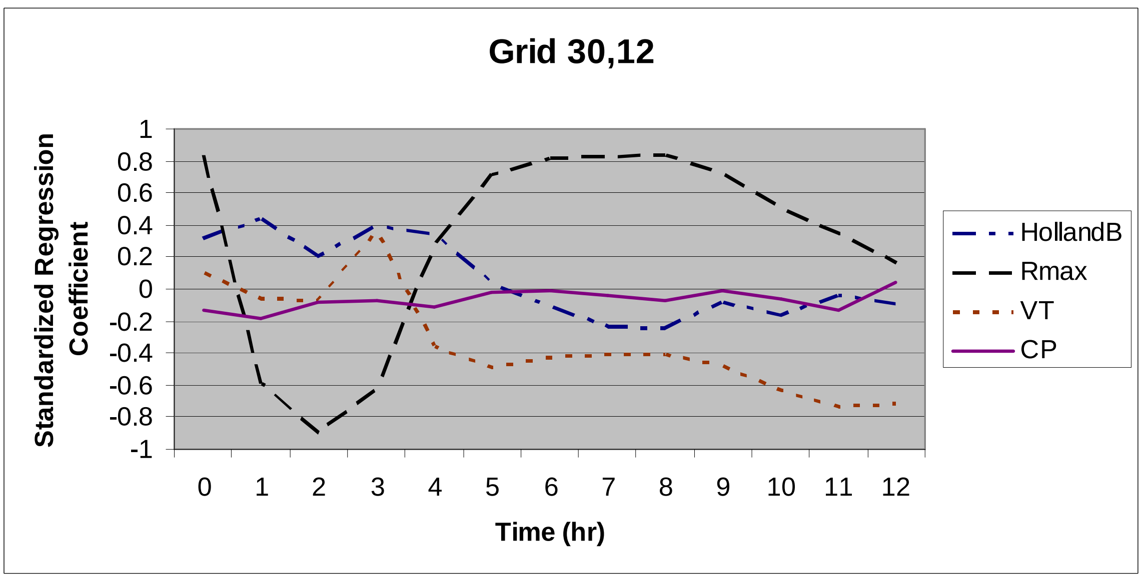


Figure 63. Standardized Regression Coeffs vs. Time at Grid Coordinates (30,0) for Category 3

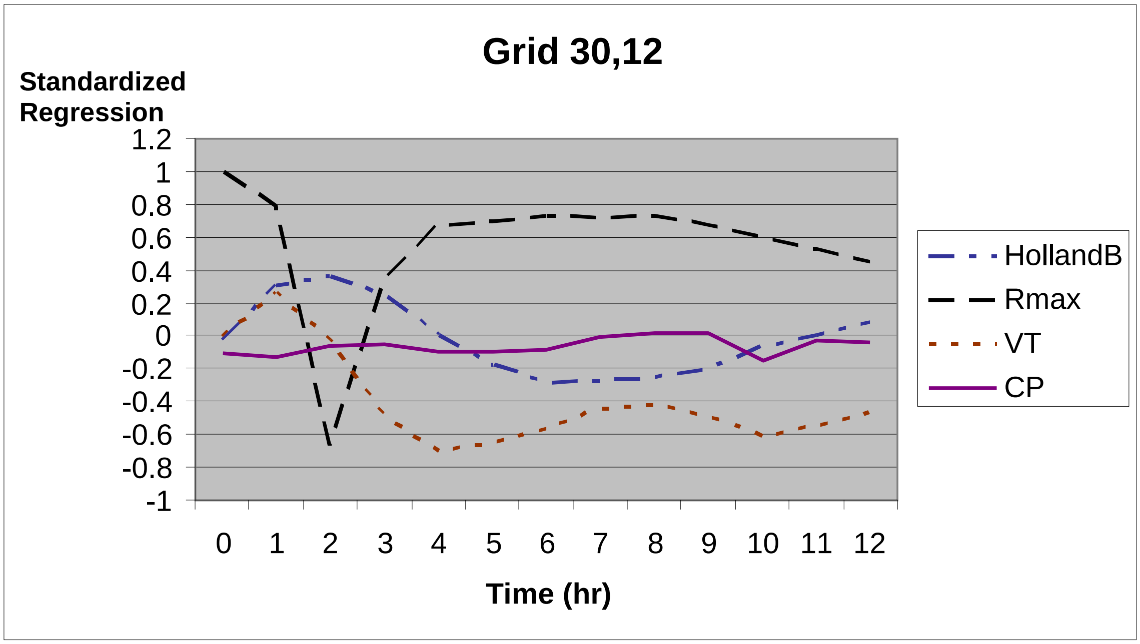


Figure 64. **Standardized Regression Coeffs vs. Time at Grid Coordinates (30,12) for Category 5**

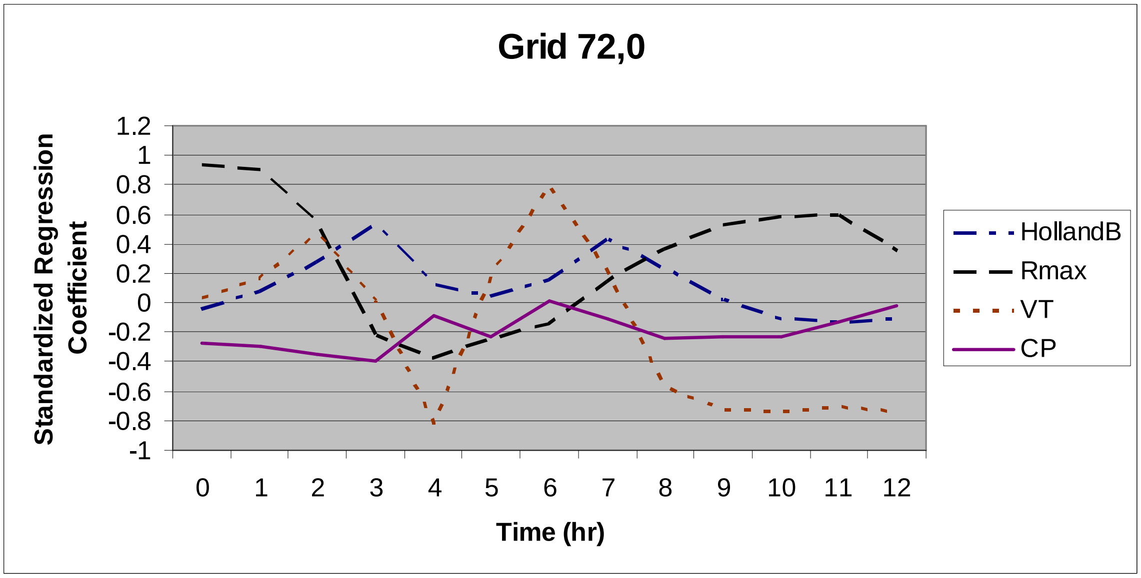


Figure 65. **Standardized Regression Coeffs vs. Time at Grid Coordinates (72,0) for Category 1**

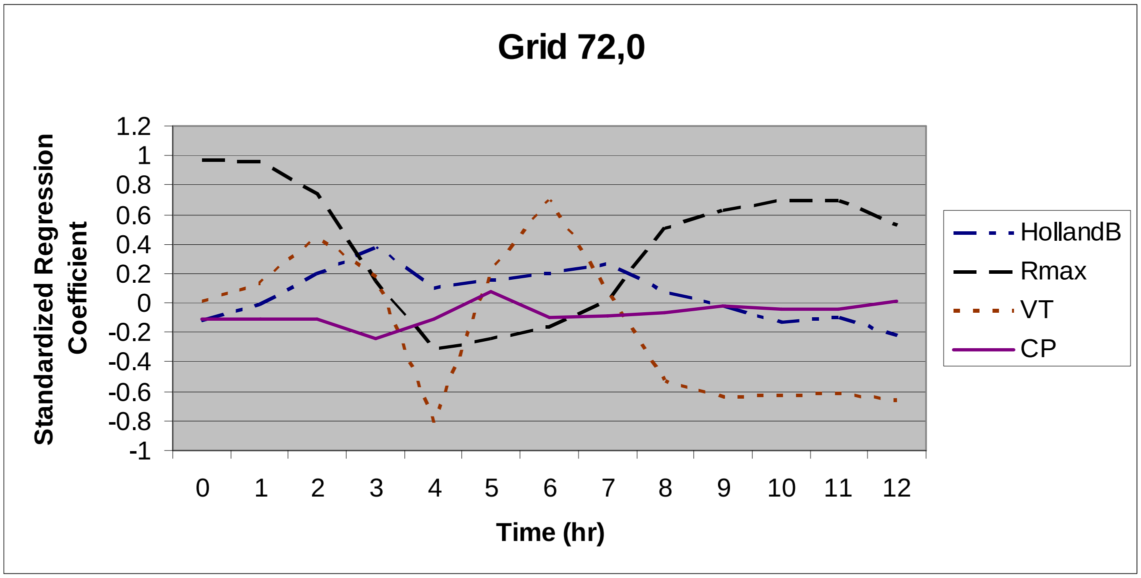


Figure 66. **Standardized Regression Coeffs vs. Time at Grid Coordinates (72,0) for Category 3**

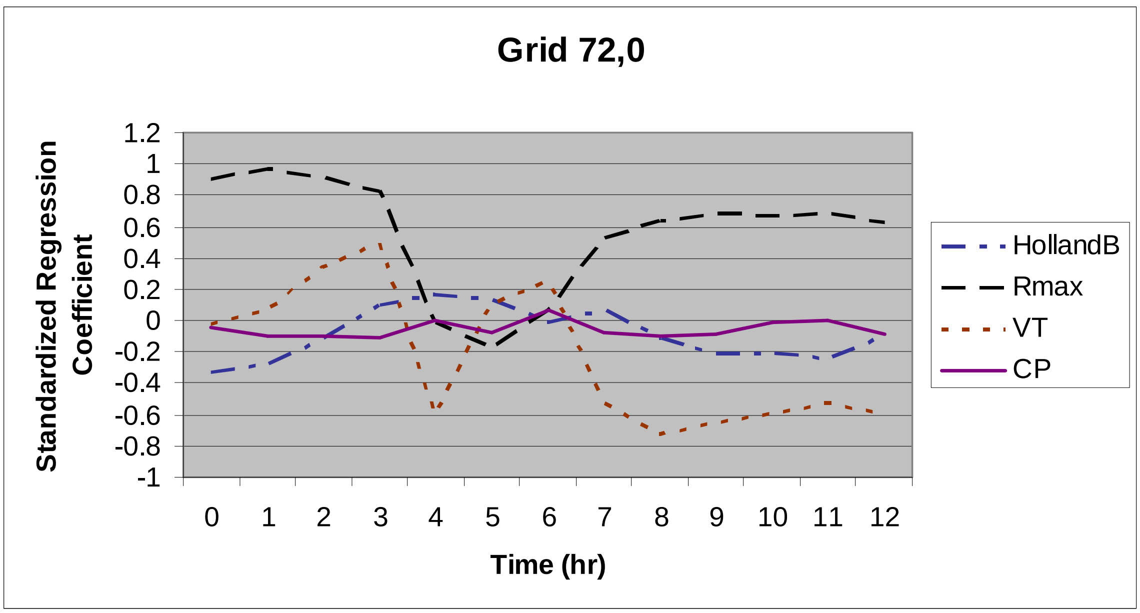


Figure 67. Standardized Regression Coeffs vs. Time at Grid Coordinates (72, 0) for Category 5

The uncertainty analysis provides the information about the influence of the uncertainty of the model parameters (Rmax, VT, Holland B and CP) in Maximum Sustained Surface Wind Speed (MSSWS) over the time. To see the influence of the parameters in MSSWS, some selected graphs (Figure 68 - Figure 76) of the expected percentage reduction vs. time for Category 1, 3 and 5 hurricanes are provided below. The calculation of the expected percentage reduction is explained on pages 26-30 of the *Professional Team Demonstration Uncertainty/Sensitivity Analysis*. From these graphs we observed that the major contribution of uncertainty for MSSWS is R-max followed by VT, Holland B and CP. At hour 0, Rmax produces the most uncertainty and at hour 12 VT contributed the highest uncertainty in the model. The contribution of R max towards uncertainty increases, while the contribution of VT decreases and vice-versa for all hurricane category. It is noted that the amount of uncertainty of the model parameters also depend on the hurricane category and grid points. The contribution of uncertainty of the parameters change as the hurricane moves from east to west. It seems that CP is the least influential.

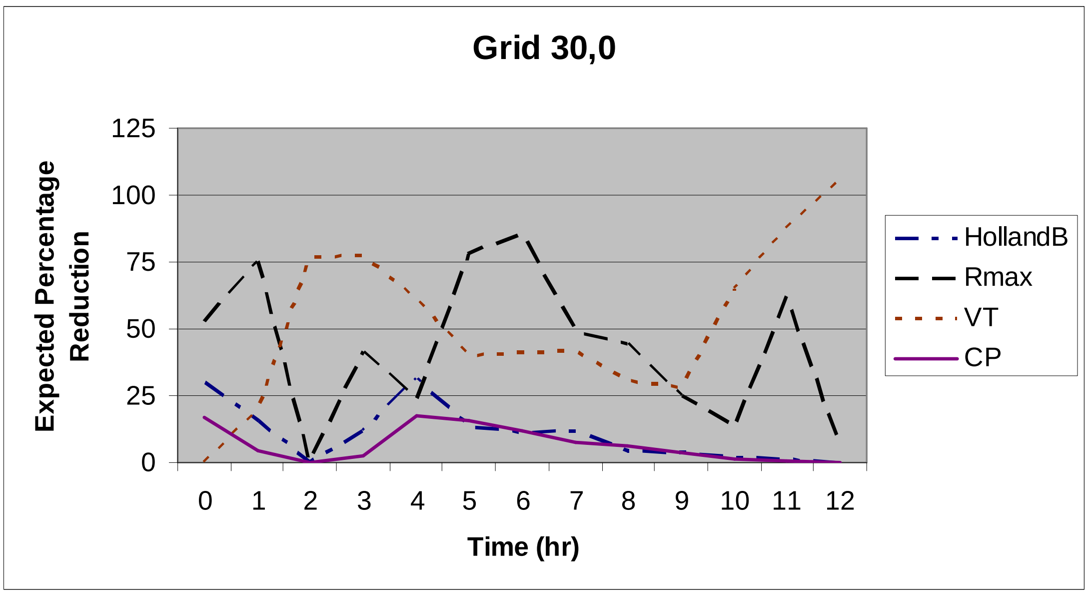


Figure 68. Expected Percentage Reductions in the Var(MSSWS) for a Category 1 Hurricane versus Time at Coordinate (30,0)

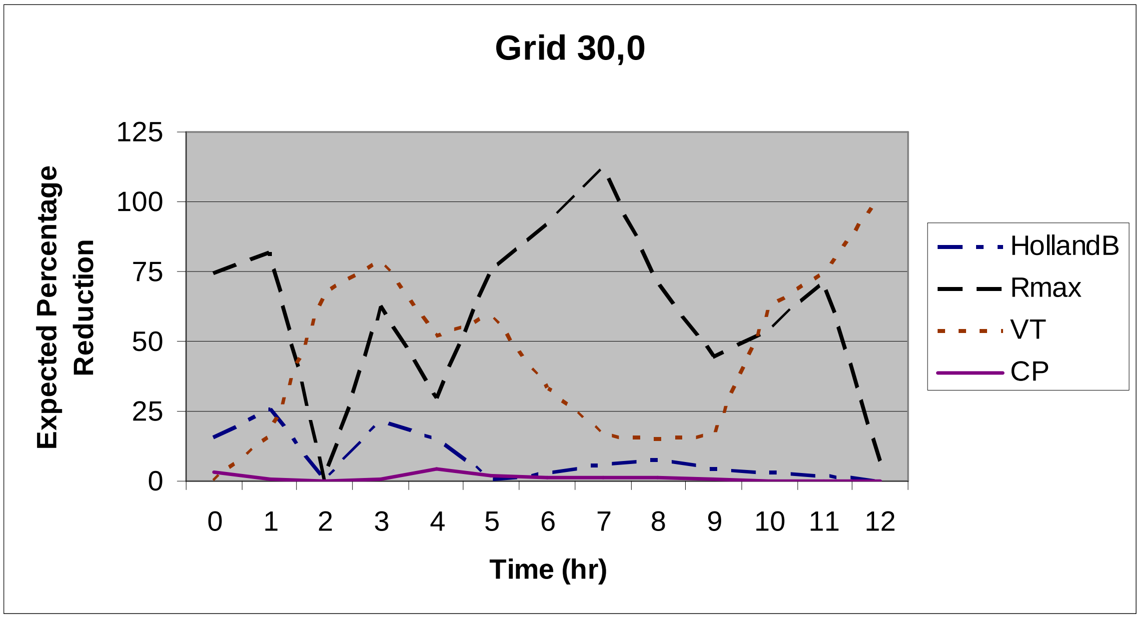


Figure 69. Expected Percentage Reductions in the Var(MSSWS) for a Category 3 Hurricane versus Time at Coordinate (30,0)

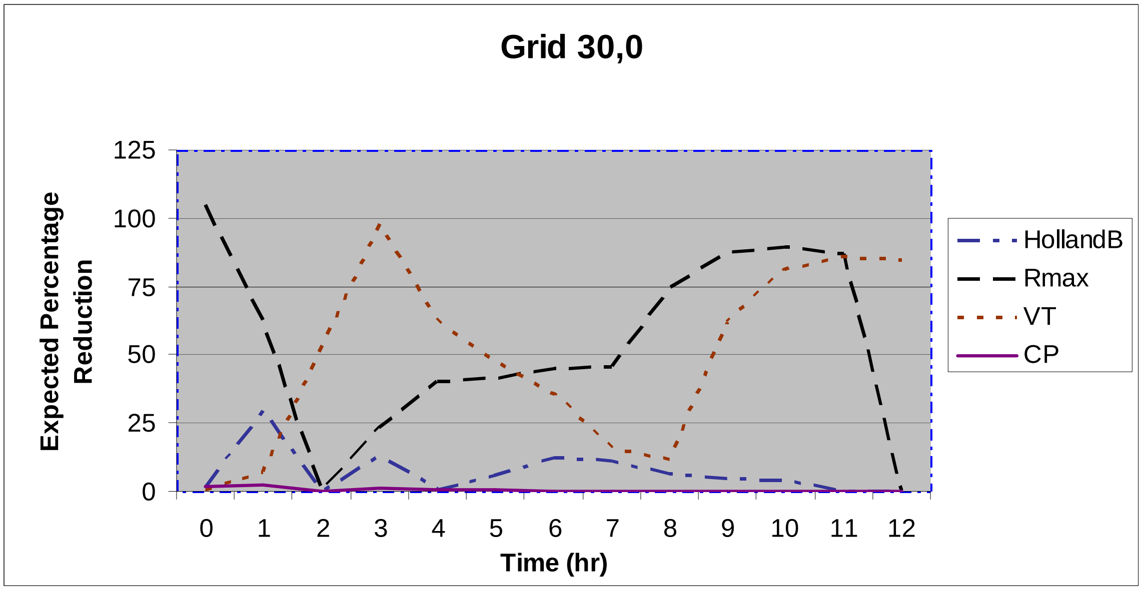


Figure 70. Expected Percentage Reductions in the Var(MSSWS) for a Category 5 Hurricane versus Time at Coordinate (30,0)

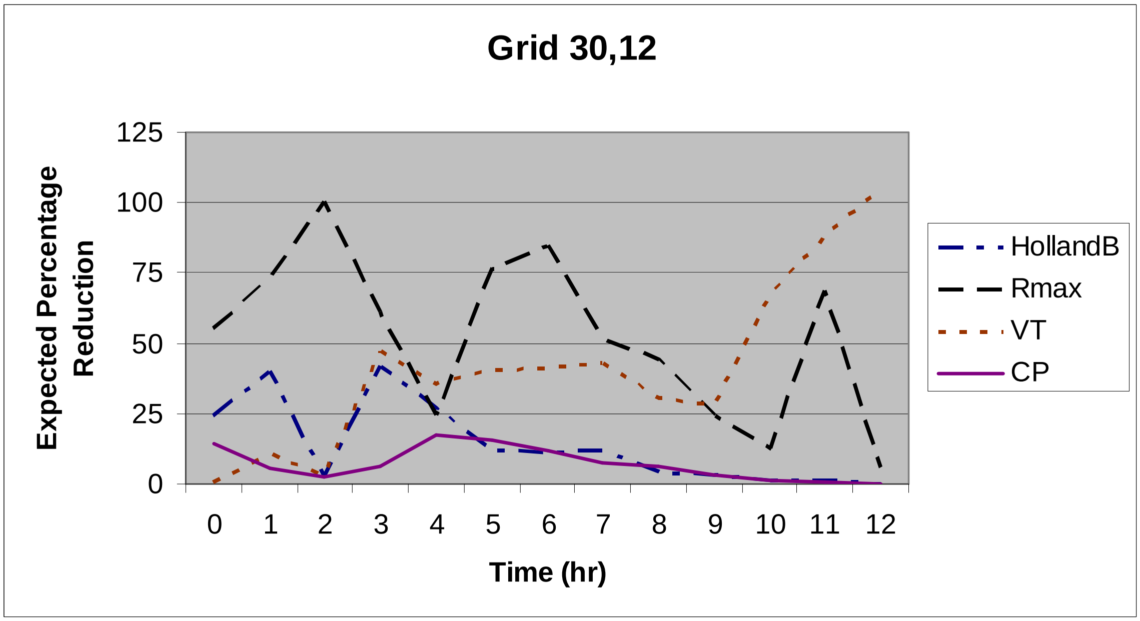


Figure 71. Expected Percentage Reductions in the Var(MSSWS) for a Category 1 Hurricane versus Time at Coordinate (30,12)

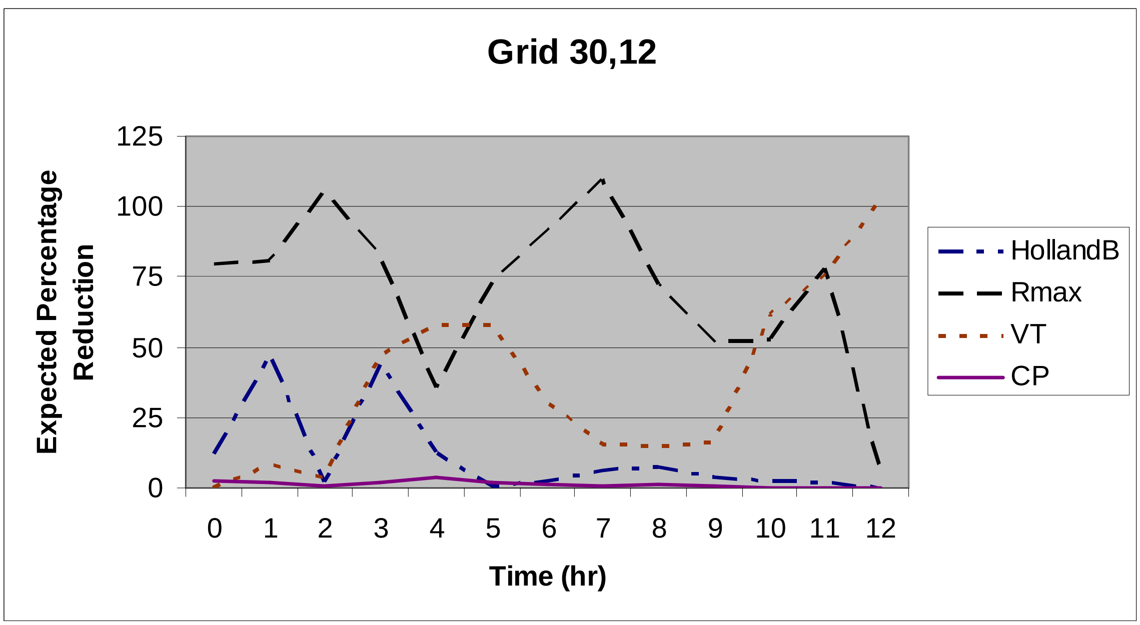


Figure 72. Expected Percentage Reductions in the Var(MSSWS) for a Category 3 Hurricane versus Time at Coordinate (30,12)

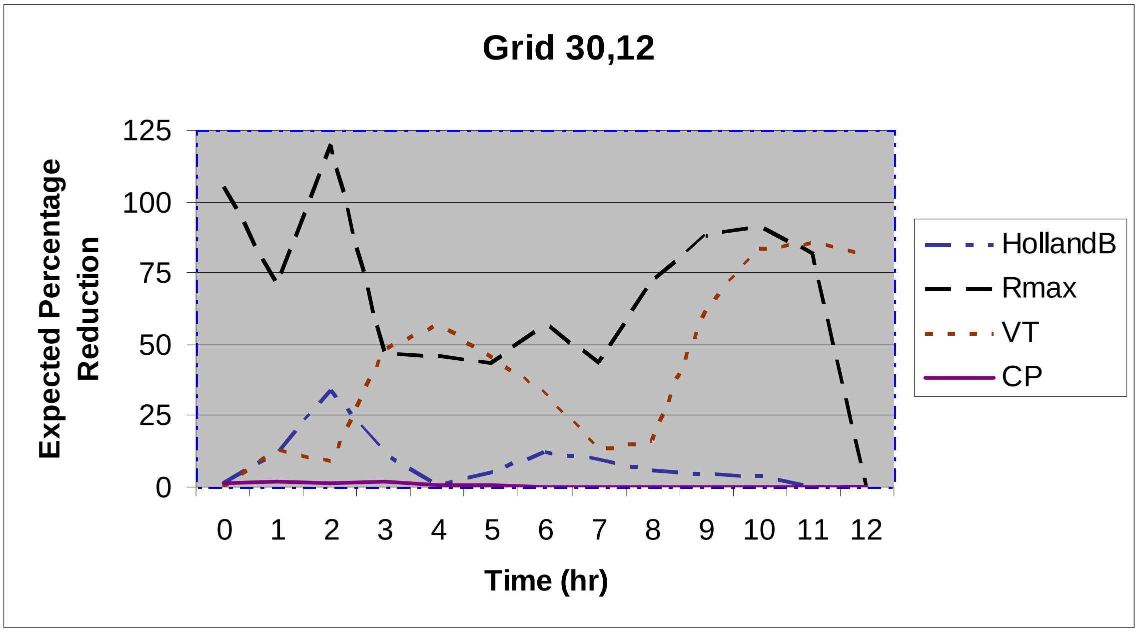


Figure 73. Expected Percentage Reductions in the Var(MSSWS) for a Category 5 Hurricane versus Time at Coordinate (30,12)

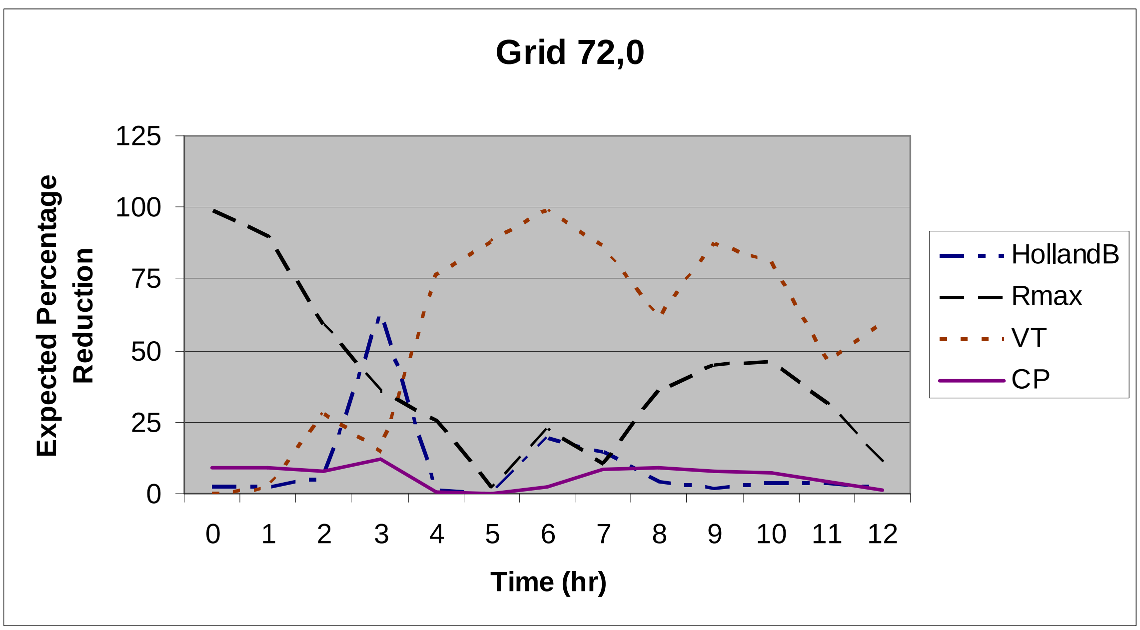


Figure 74. Expected Percentage Reductions in the Var(MSSWS) for a Category 1 Hurricane versus Time at Coordinate (72, 0)

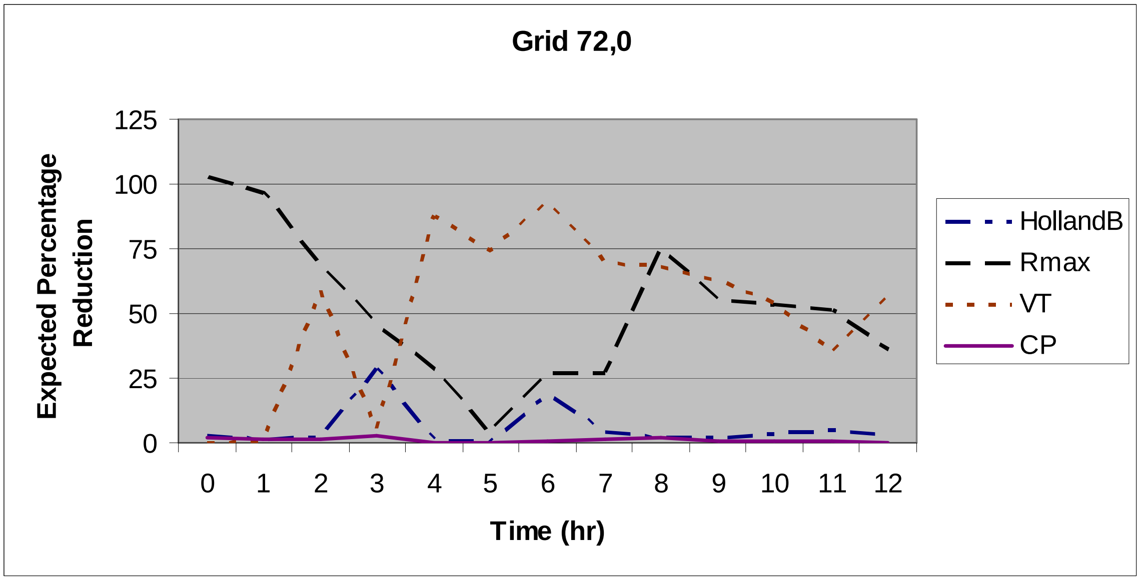


Figure 75. Expected Percentage Reductions in the Var(MSSWS) for a Category 3 Hurricane versus Time at Coordinate (72, 0)

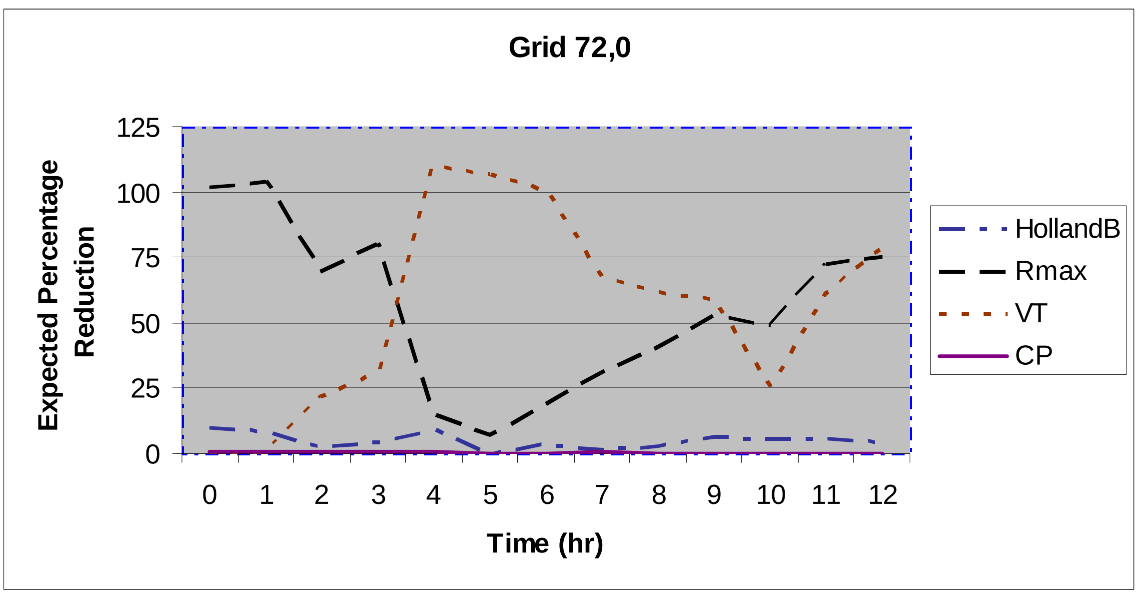


Figure 76. Expected Percentage Reductions in the Var(MSSWS) for a Category 5 Hurricane versus Time at Coordinate (72, 0)

Form S-5 Uncertainty and Sensitivity Analysis Extended to Loss Cost

In addition to uncertainty and sensitivity analyses performed for wind speed in Form S-5, we have performed the uncertainty and sensitivity analyses for loss cost using a $100,000 fully insured structure with a zero deductible policy at each of the 586 non-shaded grid points in *Figure 6 of ROA.* The Excel input file contains a seventh worksheet (Land-Water ID) that lists the 966 grid coordinates with an indicator variable defined as follows: 0 = coordinate is over water, 1 = coordinate is over land

The following house is assumed at each of the land-based grid points designated by the indicator variable. Single story, Masonry walls' Truss anchors, Gable end roof, No shutters, Shingles with one layer 15# felt, 1/2" plywood roof deck with 8d nails at 6" edge and 12" field' House constructed in 1980.

A summary of all the contour plots is given in *Figure 8 of 2006 Report of Activity (ROA)*.

Figure 8 of ROA

Summary of Contour Plots

Model Output	**Contour Plot**
Wind Speed	Hourly plots for the wind speeds in output files 1, 6 and 11 in *Figure 7* of ROA (39 contour plots). See example contour plot provided in *Figure77*.
Sensitivity Analysis	Hourly plots of standardized regression coefficients based on Form S-5 input as specified in *Figure 7* of ROA and the corresponding wind speed output files 1, 6 and 11 in *Figure 7* of ROA (39 contour plots). See example contour plot provided in *Figure 81*.
Uncertainty Analysis	Hourly plots of the expected percentage reduction in variance based on Form S-5 input as specified in *Figure 7 of ROA* and the corresponding output files (39 contour plots for each of the following input variables), which are as follows: Central pressure: output files 2, 7 and 12 in *Figure 7 of ROA* Radius of maximum winds: output files 3, 8 and 13 in *Figure 7 of ROA* Translational velocity: output files 4, 9 and 14 in *Figure 7 of ROA* Quantile: output files 5, 10, and 15 in *Figure 7 of ROA* See example contour plot provided in *Figure 85*.
Loss Cost	Loss cost based on the maximum wind speed recorded over the 12hr time period in output files 1, 6 and 11 in *Figure 7* of ROA is to be calculated at each land-based grid point in *Figure 6 of ROA.* The 586 land-based grid points in *Figure 6 of ROA* are identified in the last worksheet (Land-Water ID) of the Form S-5 input file. Since there are 100 input vectors for each hurricane category, there are 100 estimates of loss cost at each of the land-based grid points. The contour plots are based on these values expressed as a percentage. See example loss cost contour plot provided in *Figure 89*.

Figure 77 - Figure 80 show the contour plots of wind speed (mph) for Category 1, 3 and 5 hurricanes at 2hr and Category 5 at hour 4. Contours in this figure represent average wind speeds over all 100 input vectors at each grid point. The hurricane or near hurricane force winds are shown on the contour plot. These contours show that the wind speed decrease as the hurricane moves from east to west across the grid as time increases. We also observed that the wind speed increases with the increase of Hurricane Category from 1 to Category 5.

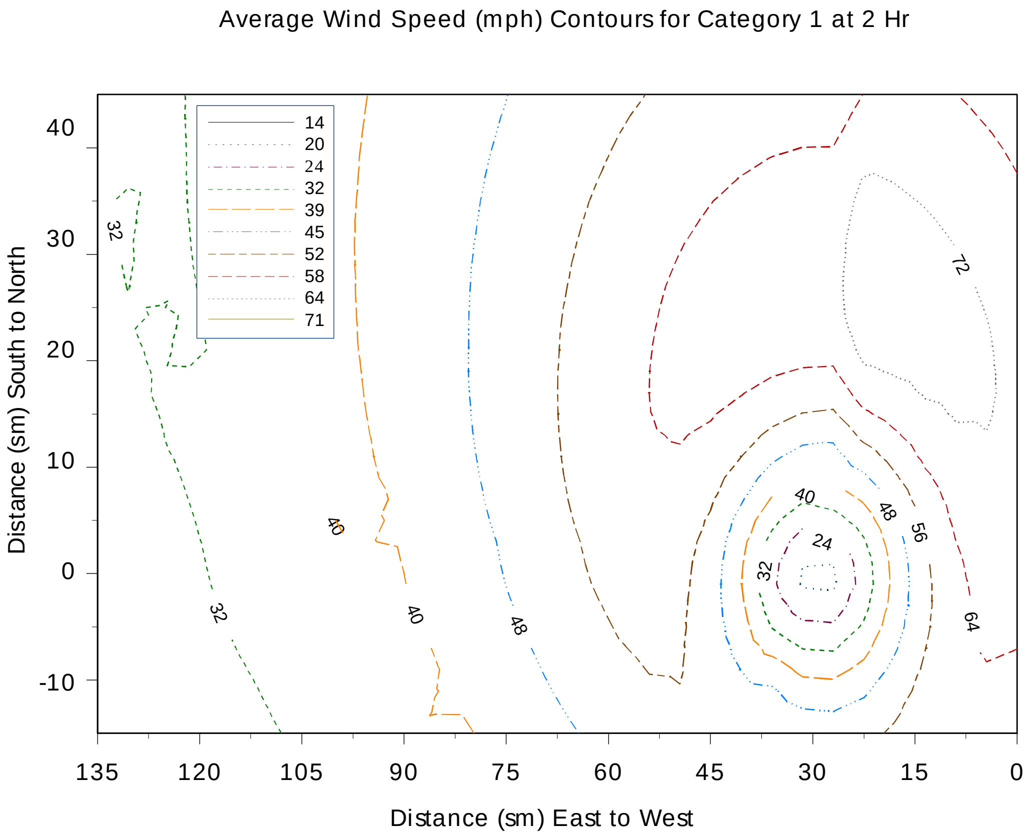


Figure 77. Average Wind Speed (mph) Contours for Category 1 Hurricane at 2hr

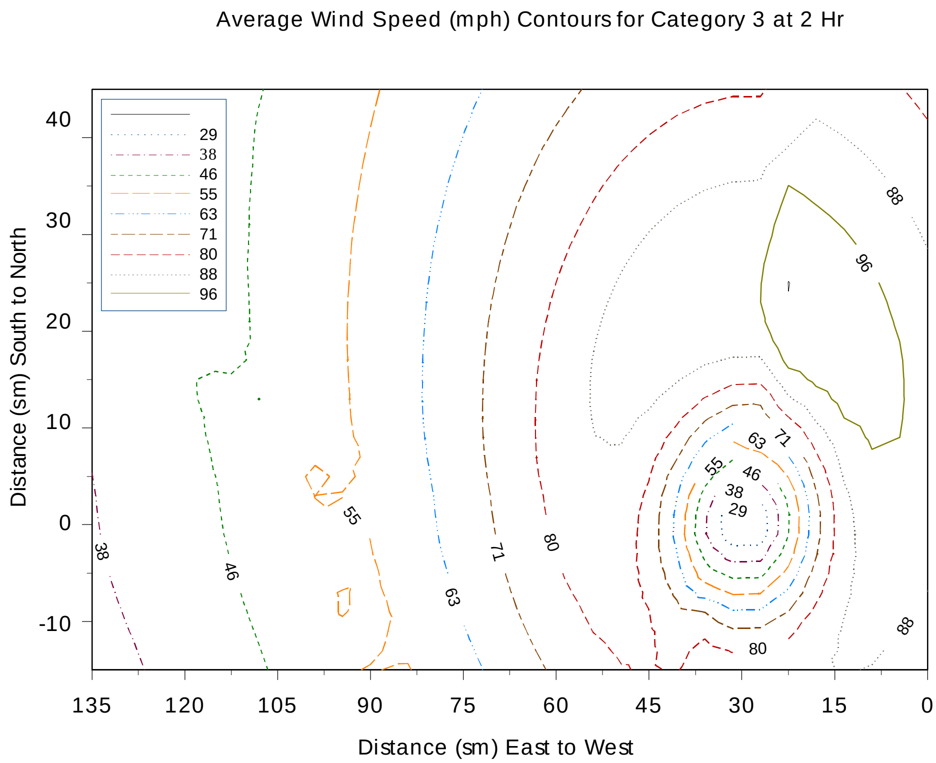


Figure 78. Average Wind Speed (mph) Contours for Category 3 Hurricane at 2hr

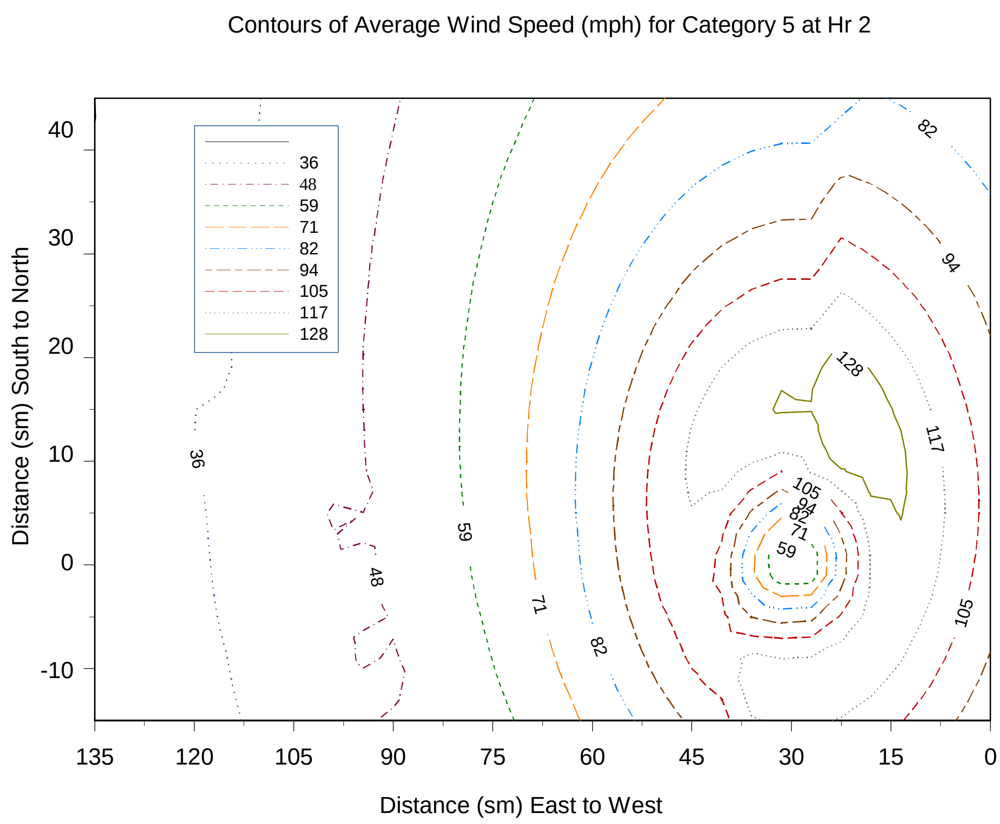


Figure 79. Average Wind Speed (mph) Contours for Category 5 Hurricane at 2hr

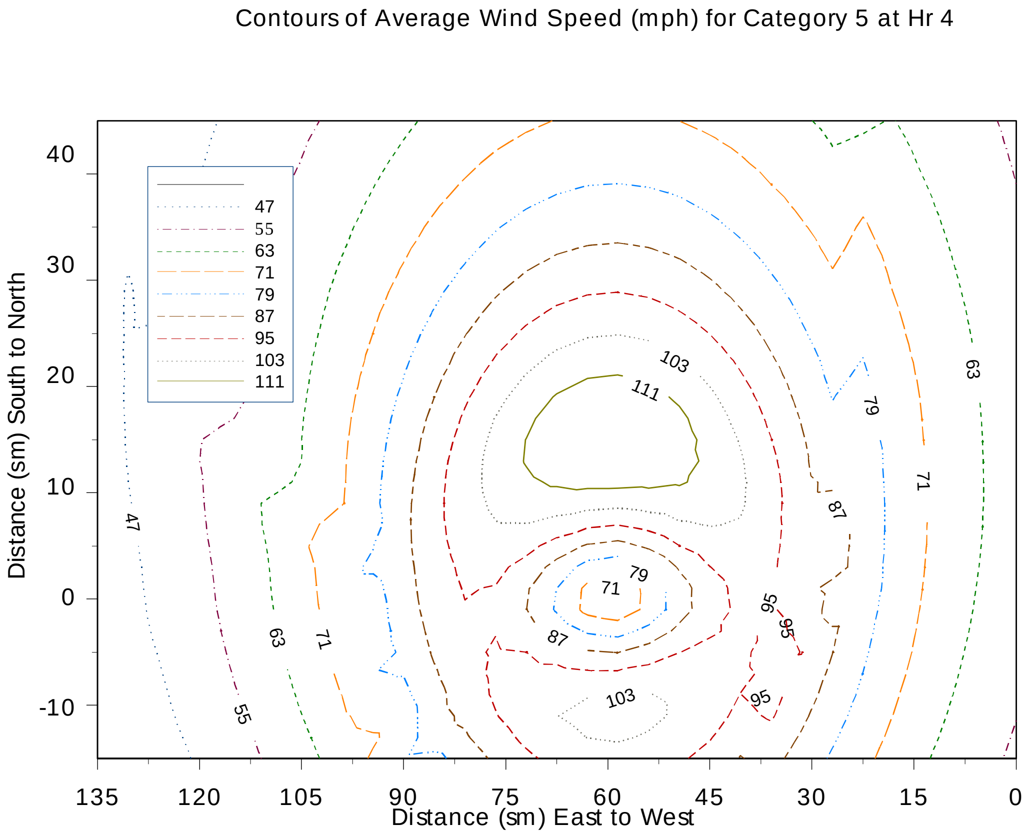


Figure 80. Average Wind Speed (mph) Contours for Category 5 Hurricane at 4hr

Figure 81 to Figure 84 show the contours of standardized regression coefficients (SRC) for Holland B, Rmax, VT and CP respectively for a Category 1 hurricane at 4hr. The contours in this figure represent average SRCs for Holland B, Rmax, VT and CP over all 100 input vectors at each grid point at t=4hr. These contours show the effect of each input variable on the magnitude of wind speed (and therefore on loss cost) as the hurricane moves from right to left across the grid as time increases.

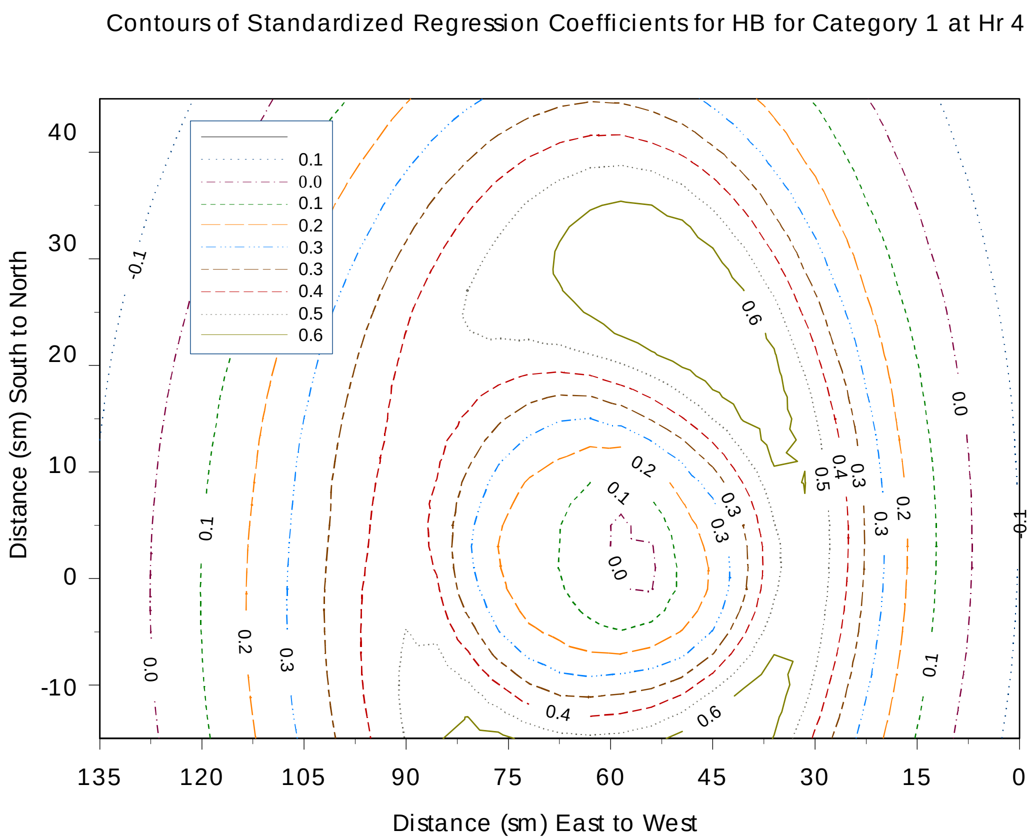


Figure 81. Contours Standardized Regression Coefficients for Holland B for Category 1 Hurricane at 4 hr

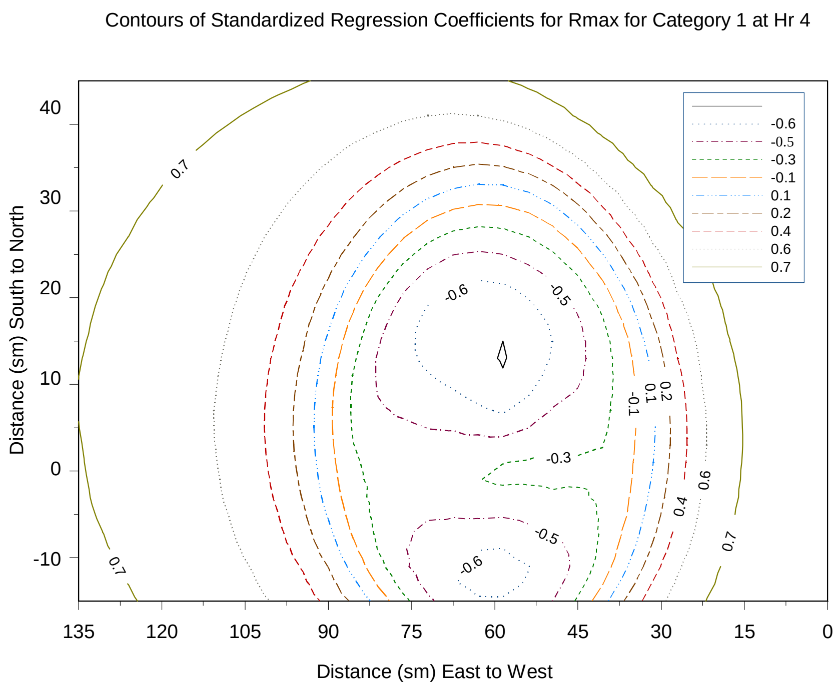


Figure 82. Contours Standardized Regression Coefficients for Rmax for Category 1 Hurricane at 4 hr

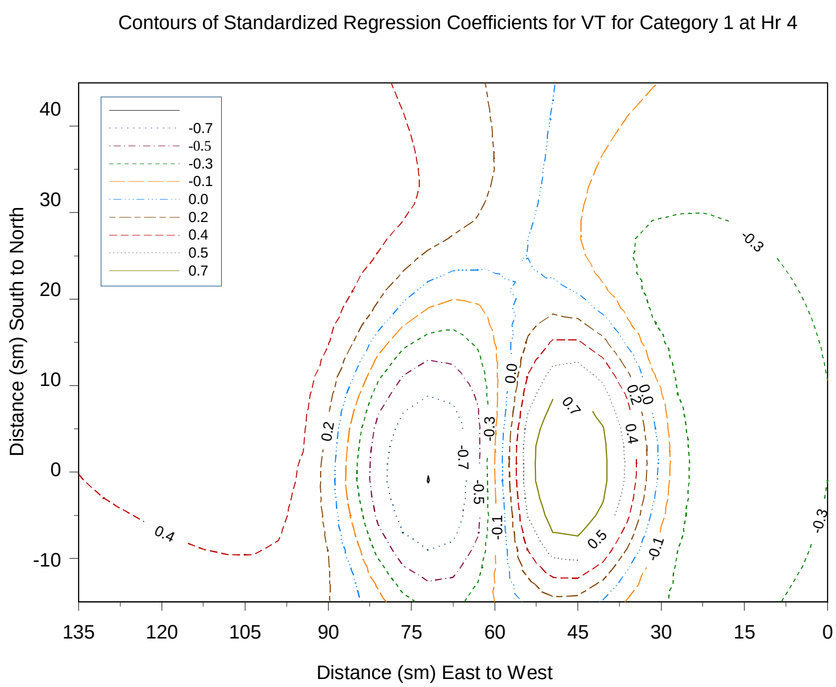


Figure 83. Contours Standardized Regression Coefficients for VT for Category 1 Hurricane at 4 hr

Contours of Standardized Regression Coefficients for CP for Category 1 at Hr 4

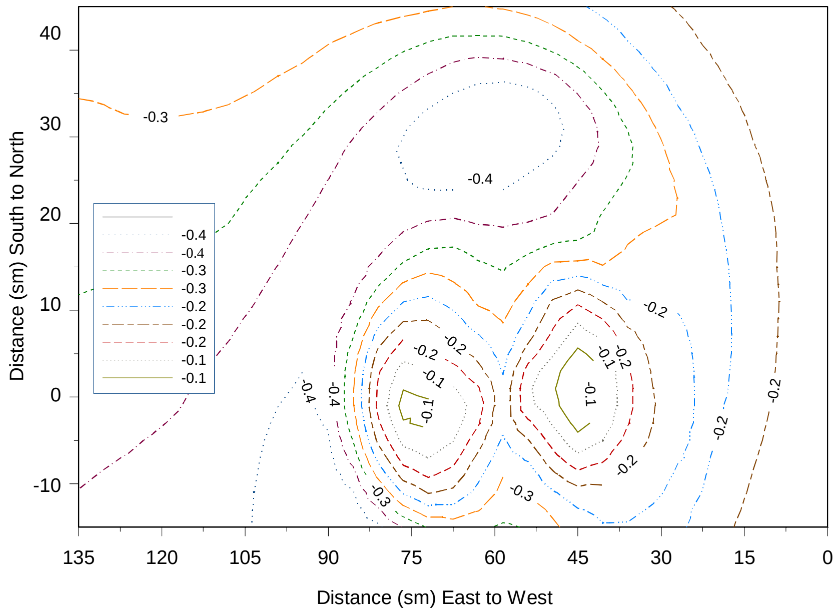


Figure 84. Figure Contours Standardized Regression Coefficients for CP for Category 1 Hurricane at 4 hr

Figure 85 - Figure 88 show some selected contours of the expected percentage reduction in variance for Holland B, Rmax, VT and CP respectively for a Category 1 hurricane at 3hr. The contours in these figures represent the average value of the expected percentage reduction in the variance of the wind speed attributable to Rmax, VT, Holland B and CP when taken over all 100 input vectors at each grid point at t=3hr. These contours illustrate the effect of each input variable on the uncertainty in wind speed (and therefore the uncertainty in loss cost) as the hurricane moves from right to left across the grid as time increases.

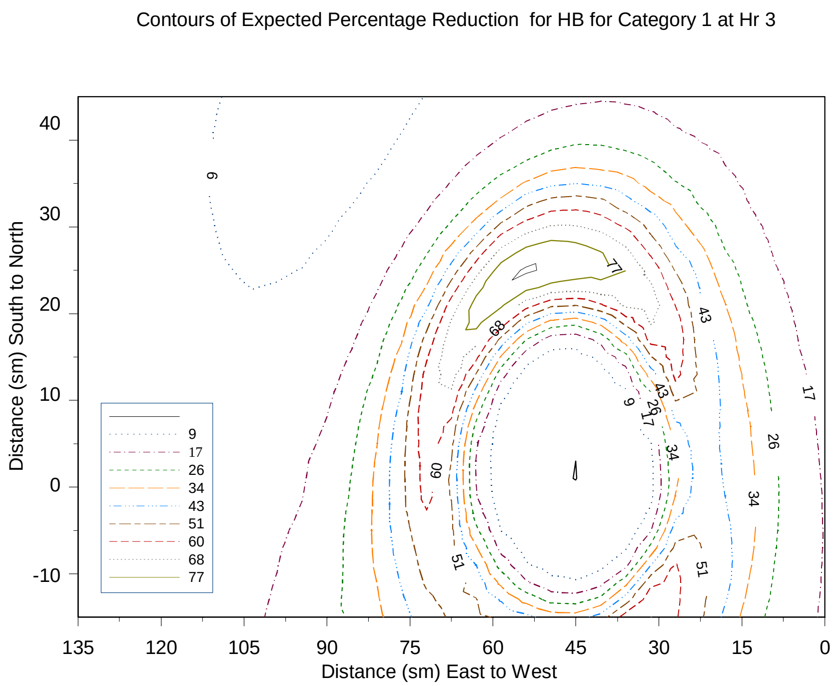


Figure 85. Contours of the Expected Percentage Reduction for Holland B for a Category 1 Hurricane at 3hr

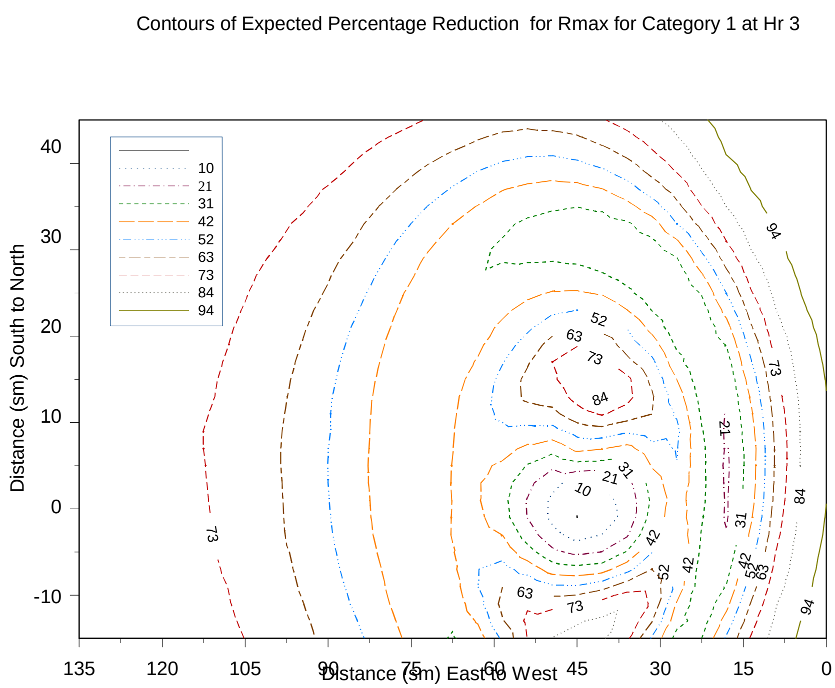


Figure 86. Contours of the Expected Percentage Reduction for Rmax for a Category 1 Hurricane at 3hr

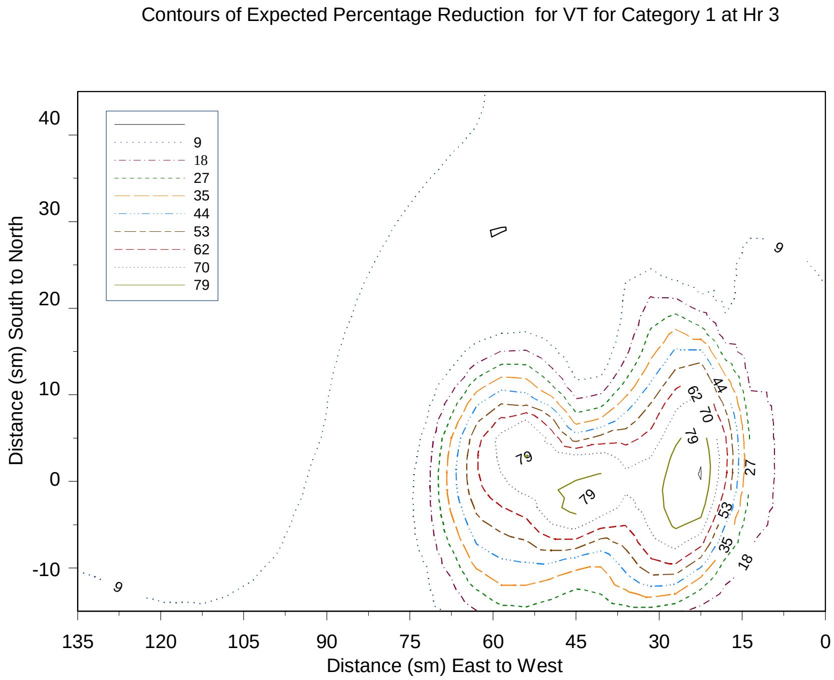


Figure 87. Contours of the Expected Percentage Reduction for VT for a Category 1 Hurricane at 3hr

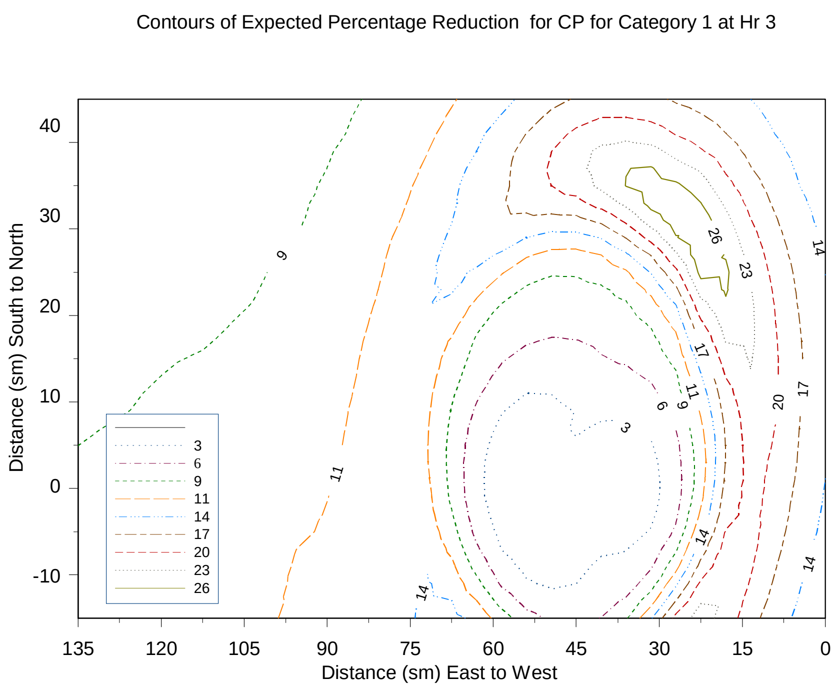


Figure 88. Contours of the Expected Percentage Reduction for CP for a Category 1 Hurricane at 3hr

Figure 89 - Figure 91 show the contours of the average percentage loss cost for a Category 1, 3, and 5 hurricanes respectively for each land-based grid point. A percentage loss cost has been calculated for each land-based grid point based on the maximum wind speed observed at the point during the 12hr duration of the hurricane track. This calculation is repeated for each of the 100 input vectors. The average percentage loss costs are found to be about between 3.5% - 5.4% for Category 1, between 5.5% - 20% for Category 3 and between 4.5% - 40% for Category 5 hurricane. The largest losses occur shortly after landfall to the right of the hurricane path.

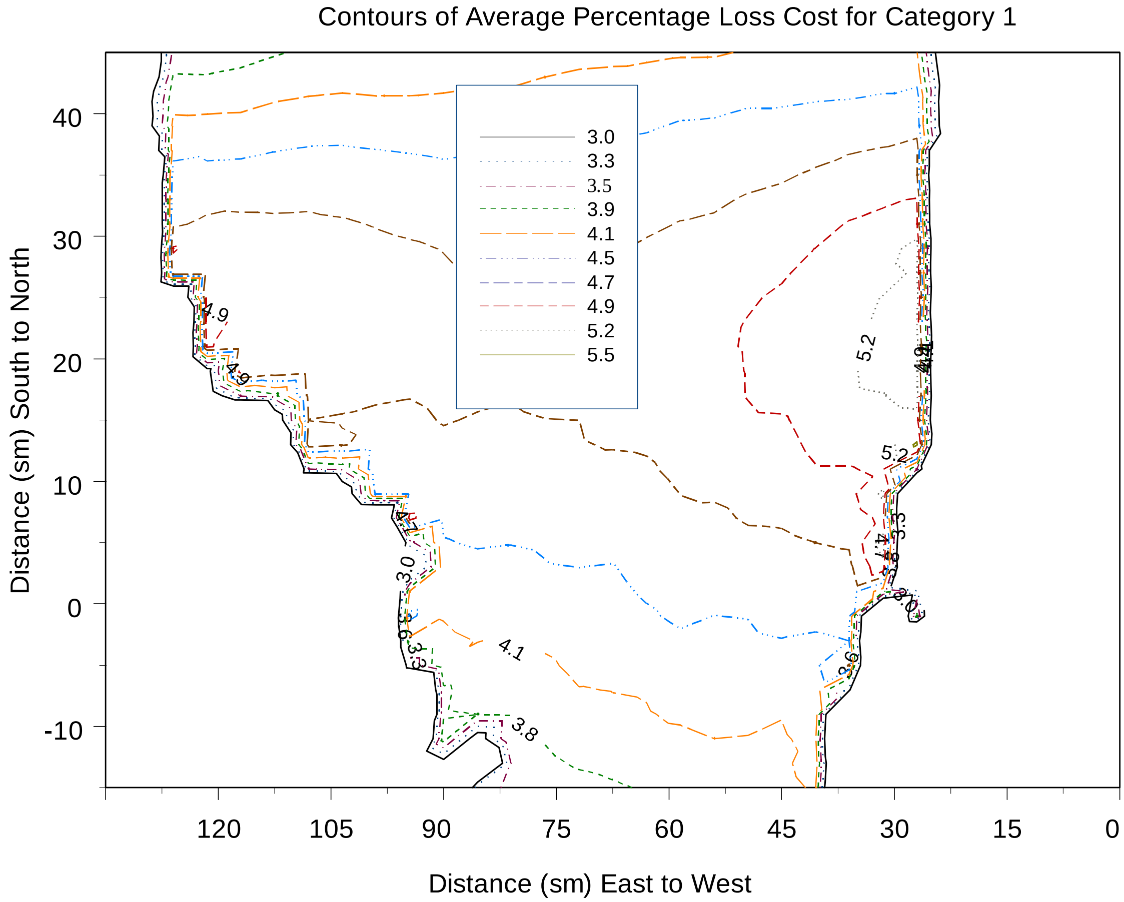


Figure 89. Average Percentage Loss Cost Contour for a Category 1Hurricane

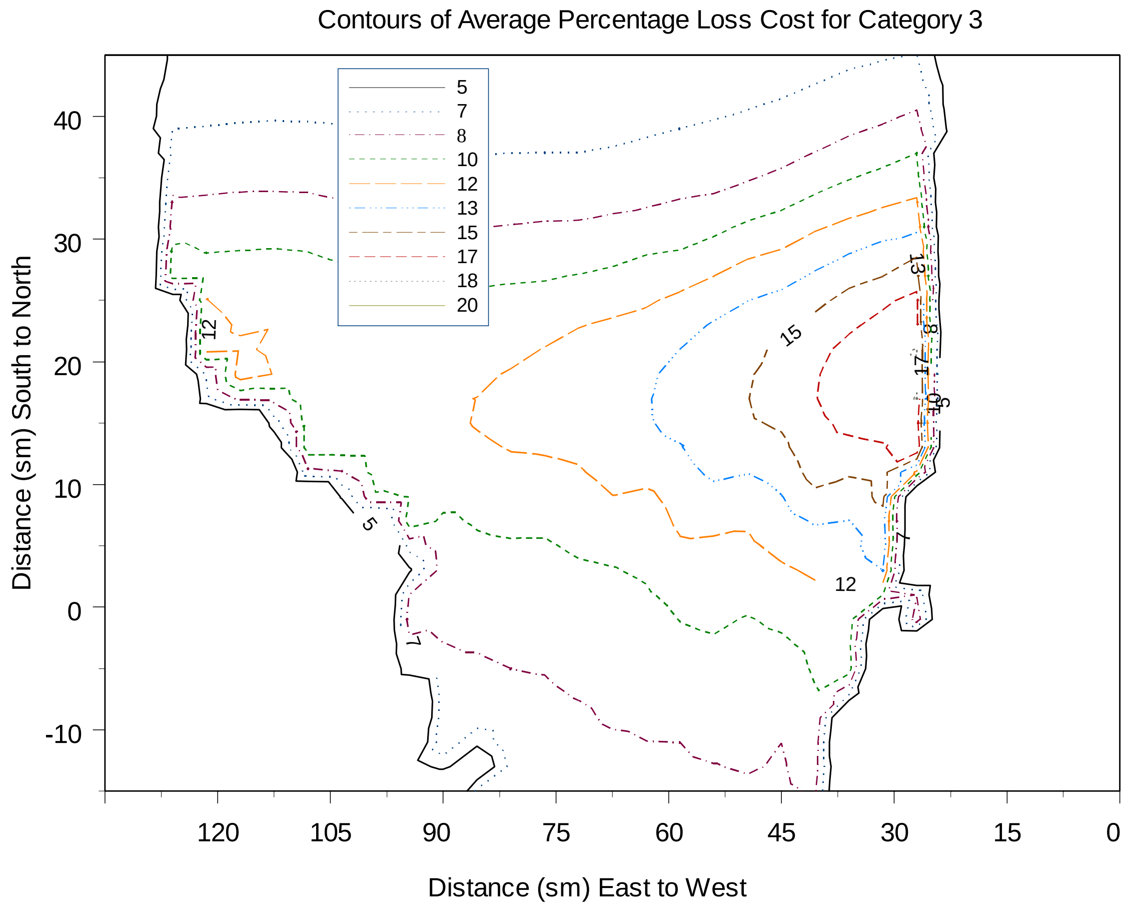


Figure 90. Average Percentage Loss Cost Contour for a Category 3 Hurricane

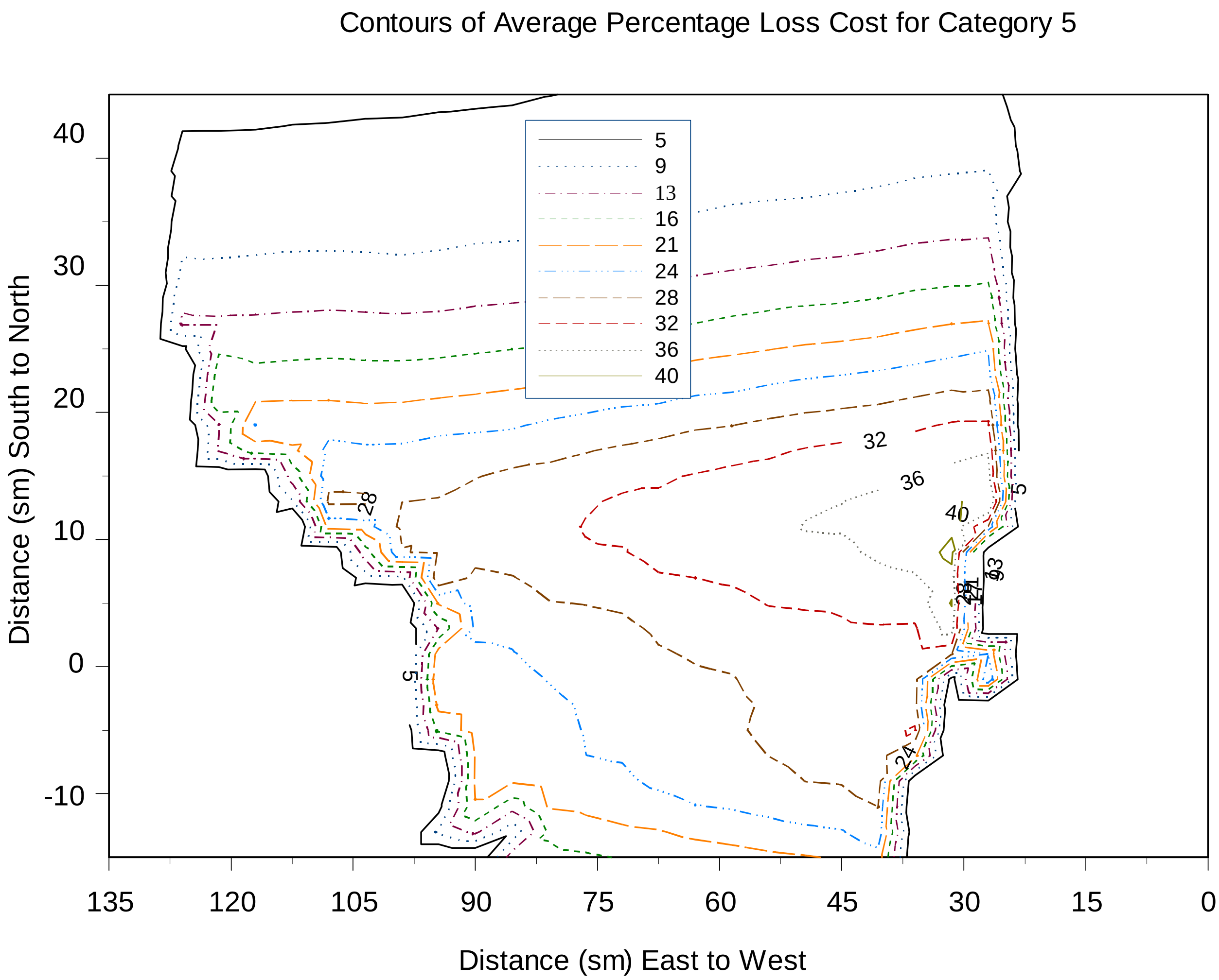


Figure 91. Average Percentage Loss Cost Contour for a Category 5 Hurricane

Figure 92 - Figure 95 show the sample sensitivity analysis results for the loss cost for all input variables based on a model that utilizes the Holland B parameter as the Quantile variable. The results shown in Figure 92 - Figure 95 are based on the original data. It is observed from these figures that the loss cost is sensitive to parameters Holland B, Rmax, VT and CP. The loss cost is least sensitive to VT. Holland B has positive effect while CP has negative effect on the loss cost. Rmax has both positive and negative effects on loss cost depend on the category of hurricane.

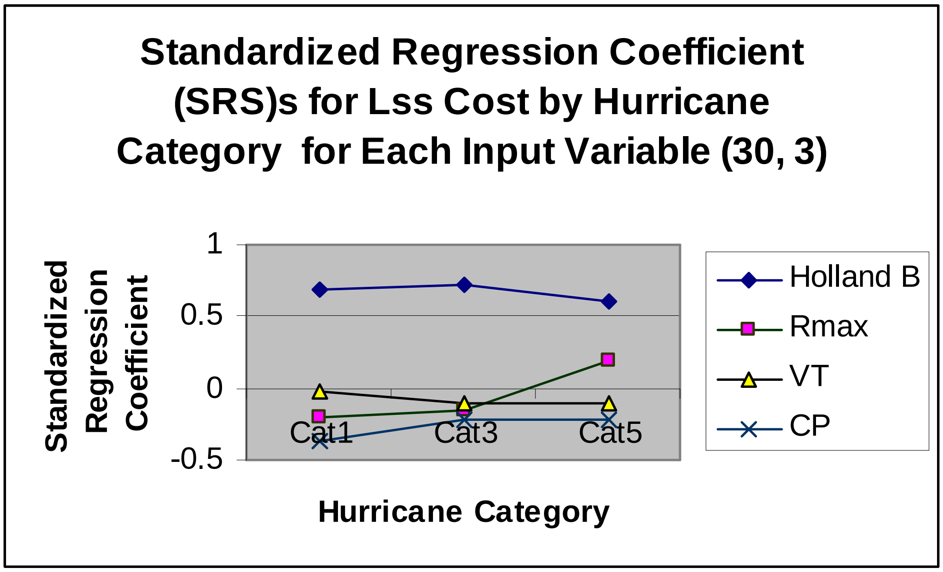


Figure 92. Standardized Regression Coefficients for Loss Cost by Hurricane Category for each input variables for coordinate (30, 3)

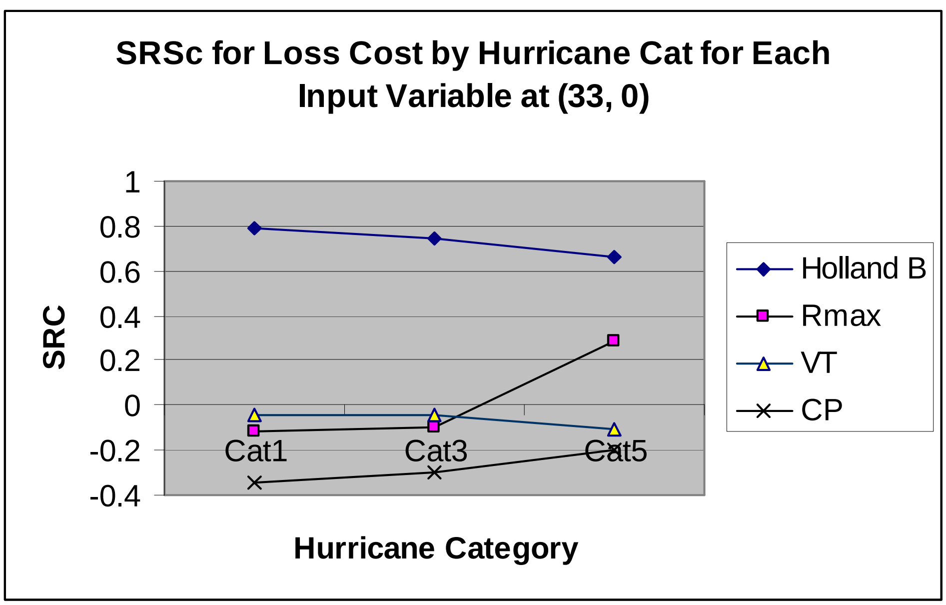


Figure 93. Standardized Regression Coefficients for Loss Cost by Hurricane Category for each input variables for coordinate (33, 0)

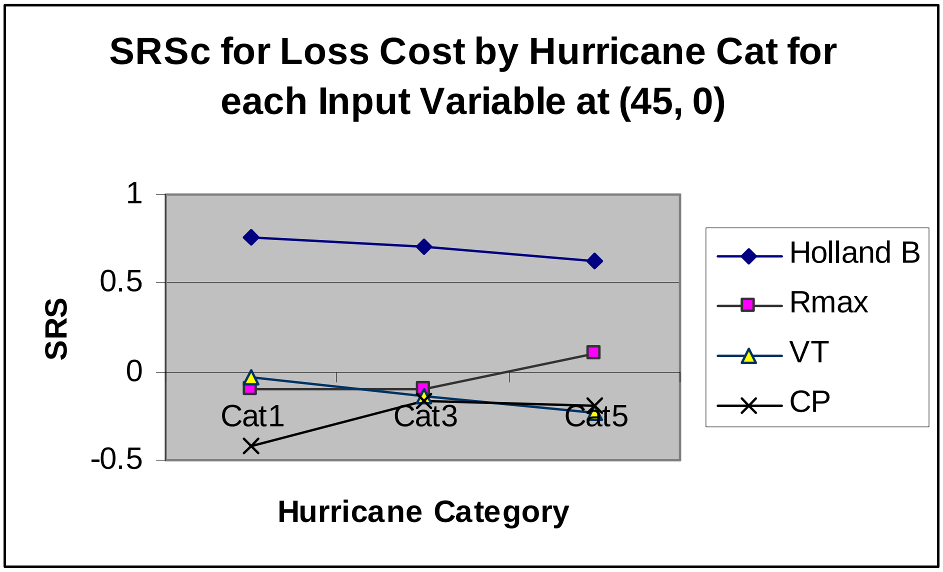


Figure 94. Standardized Regression Coefficients for Loss Cost by Input Variables for each category of hurricane for grid point (45, 0)

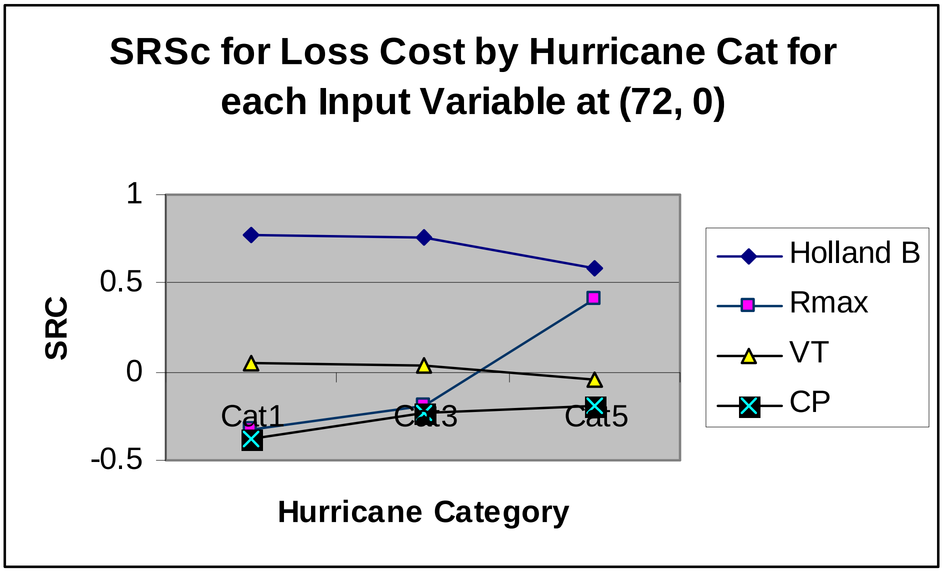


Figure 95. Standardized Regression Coefficients for Loss Cost by Input Variables for each category of hurricane for grid point (72, 0)

Figure 96 - Figure 99 show the sample uncertainty analysis results for the loss cost for all input variables based on a model that utilizes the Holland B parameter as the quantile variable. The results shown in Figure 96 - Figure 99 are based on the original data. From these graphs we observed that the major contributions of uncertainty for loss cost are R-max, VT and Holland B. The uncertainty increase with the increase of the hurricane category. It appears that CP is the least influential.

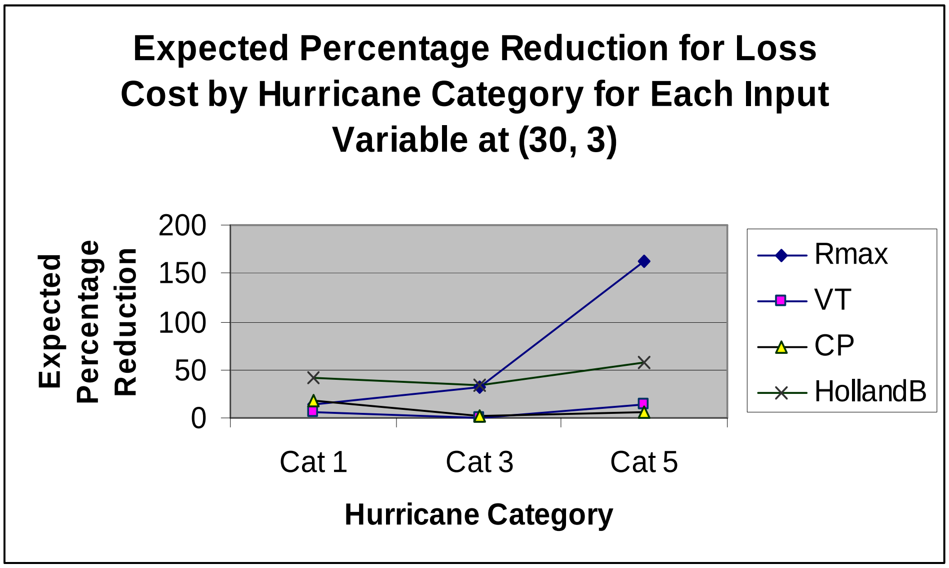


Figure 96. Expected Percentage Reduction for Loss Cost by Hurricane Category for Each Input Variable at grid point (30, 3)

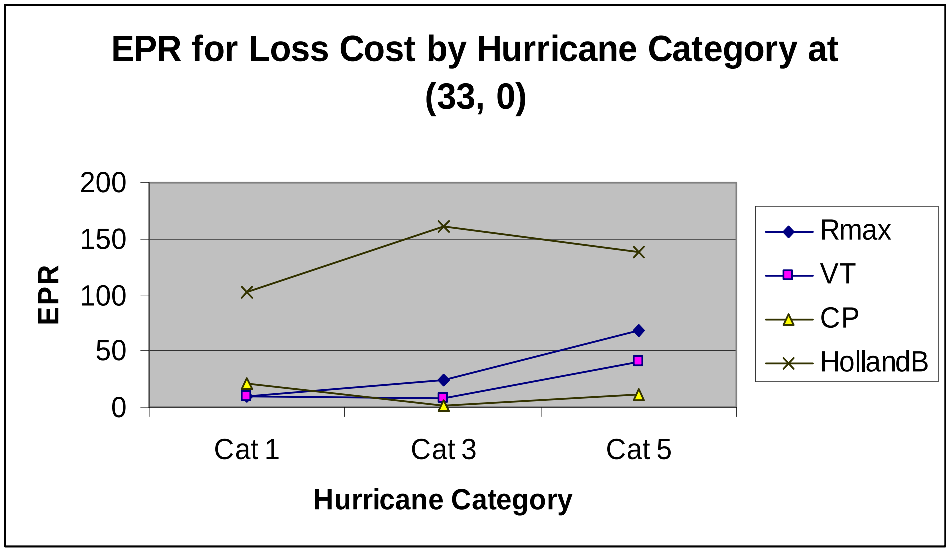


Figure 97. Expected Percentage Reduction for Loss Cost by Hurricane Category for Each Input Variable at grid point (33, 0)

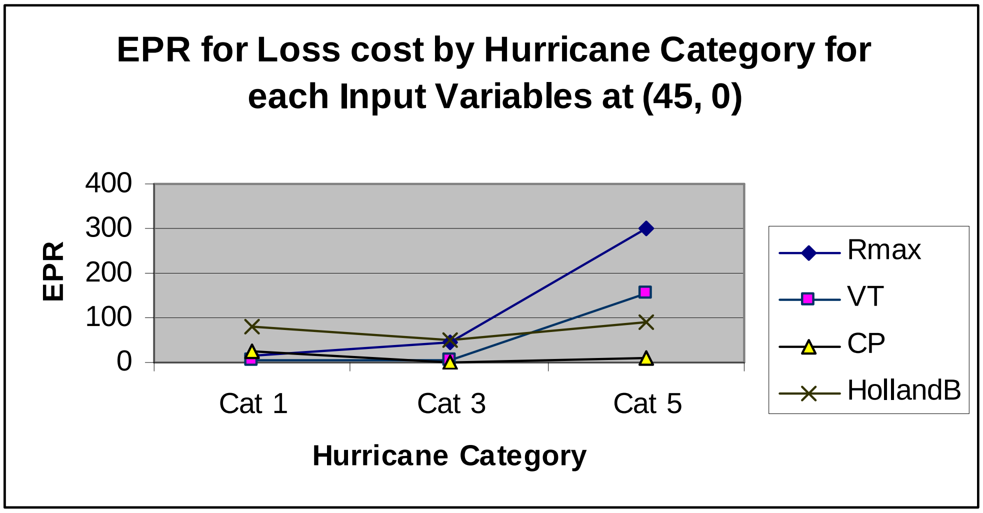


Figure 98. Expected Percentage Reduction for Loss Cost by Hurricane Category for Each Input Variable at grid point (45, 0)

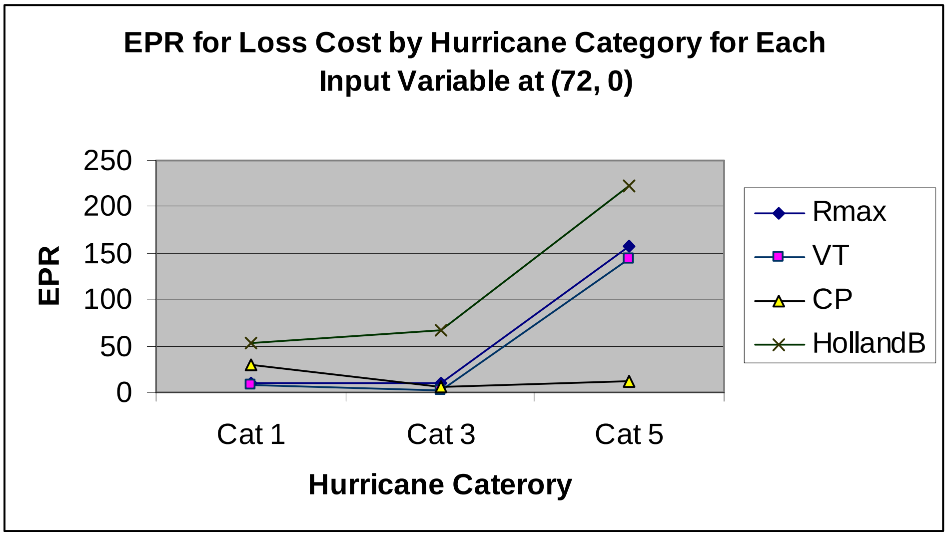


Figure 99. Expected Percentage Reduction for Loss Cost by Hurricane Category for Each Input Variable at grid point (72, 0)

COMPUTER STANDARDS

C-1 Documentation*

*(*Significant Revision)*

A. The modeler shall maintain a primary document binder, containing a complete set of documents specifying the model structure, detailed software description, and functionality. Development of each section shall be indicative of accepted software engineering practices.

Florida Public Hurricane Loss Model (FPHLM) maintains a primary document binder, both in electronic and physical formats, to satisfy the above mentioned requirements. In addition to these, a user manual is maintained with the end user in focus, to give a high level introduction and step by step guideline through the whole system. All the documents are easily available for inspection, electronic copies are also available on-line. Accepted software engineering practices are used to make all the documents more readable, self contained, consistent, and easy to understand. Every component of the system is documented with standard Use Case diagrams such as Class Diagrams, Data Flow Diagrams, Sequence Diagrams, etc. The diagrams describe the structure, logic flow, information exchange among sub-modules, etc. of each component in detail and increase the visibility of the system. These diagrams describing the component functionality and structure also make each component of the system reusable and easily maintainable.

B. All computer software (i.e., user interface, scientific, engineering, actuarial, data preparation, and validation) relevant to the modeler's submission shall be consistently documented and dated.

The Primary Document Binder consists of all the required documents arranged in different sub folders and are linked to one another based on their mutual relationships. Thus, the entire document can be viewed as a hierarchical referencing scheme where each module is linked to its sub module which ultimately refers to the corresponding codes.

C. Documentation shall be created separately from the source code.

Databases and formats of all the input/output data files are comprehensively documented. All source code is properly documented in terms of both in-line detailed comments and external higher level documentation, and they are maintained under version control systems. Source code documentation has been created separately from the source code.

C-2 Requirements*

*(*Significant Revision)*

The modeler shall maintain a complete set of requirements for each software component as well as for each database or data file accessed by a component.

FPHLM is divided into several major modules, where each of them provides one or more inputs to other modules. Requirements of each of the modules, including input/output formats, are precisely documented. Apart from maintaining a detailed documentation of each module of the system using standard software practice, several other documents are maintained as part of a large-scale project management requirement such as quality assurance document, system hardware and software specification document, training document, model maintenance document, testing document, user manual document, etc. Moreover, a detailed documentation is designed for the database consisting of the schemas and information about each table. Additionally, for each data file (in the form of excel or text file) accessed by different programs, the information about its format is also documented.

Disclosures

Provide a description of the documentation for interface, human factors, functionality, documentation, data, human and material resources, security, and quality assurance.

- The user interface, functionality requirements, and material resources of each of the modules are described in the relevant module documentations. Database schemata and table formats are separately documented for the whole system and attached to the primary document binder. A separate software testing and quality assurance document describes the system quality, performance, and stability concerns. Additionally, a user manual and a human resource management document are maintained. Apart from these, security, software and hardware specifications for the system as well as training plans are documented.

C-3 Model Architecture and Component Design*

*(*Significant Revision)*

The modeler shall maintain and document (1) detailed control and data flow diagrams and interface specifications for each software component, and (2) schema definitions for each database and data file. Documentation shall be to the level of components that make significant contributions to the model output.

Interface specifications for each of the modules are included in the module documentation. In addition, the User Manual provides further information about the user interface specification. Control and data flow diagrams are presented at various levels of the model documentation. High level flow diagrams are used to illustrate the flow of the whole system and interactions between modules, while more technical and detailed diagrams are used in module level descriptions.

The database schema is documented and attached as part of the document binder. A detailed schema representation of the active database is documented with additional information like database maintenance, tuning, data loading methodologies, etc. to provide with a complete picture of the database maintained for the project.

These documents will be made available to the Professional Team during its site visit.

C-4 Implementation*
*(*Significant Revision)*

A. The modeler shall maintain a complete procedure of coding guidelines consistent with accepted software engineering practices.

FPHLM has developed and followed a set of coding guidelines that is consistent with accepted software practices. These documents include guidelines for version controlling, code revision history maintenance, etc. All the developers involved in the system development adhere to the instructions in these documents.

B. The modeler shall maintain a complete procedure used in creating, deriving, or procuring and verifying databases or data files accessed by components.

FPHLM uses an Oracle database to store the related data necessary for the model. The database documentation includes the procedures for creating and deriving the database. Data files are generated by different modules and used as interfaces between modules. Several data verification techniques are undertaken to assure the correctness. Details about these are included in the module documentation.

C. All components shall be traceable, through explicit component identification in the flow diagrams, down to the code level.

Traceability, from requirements to the code level and vice versa, is maintained throughout the system documentation.

D. The modeler shall maintain a table of all software components affecting loss costs, with the following table columns: (1) Component name, (2) Number of lines of code, minus blank and comment lines; and (3) Number of explanatory comment lines.

The FPHLM primary document binder includes a table that gives the above requested information. The table is available for review by the professional team.

E. Each component shall be sufficiently and consistently commented so that a software engineer unfamiliar with the code shall be able to comprehend the component logic at a reasonable level of abstraction.

All the software codes are properly provided with code-level comments and a consistent format is maintained throughout the software modules. These code level comments include a summary of important changes, names of developers involved in each modification, function headers, and in-line comments to explain potentially ambiguous software code.

Disclosures

Specify the hardware, operating system, other software, and all computer languages required to use the model.

The system is mainly a web-based application that is hosted in Oracle 9i web application server. The backend server environment is Linux and the server side scripts are written in Java Server Pages (JSP) and Java beans. Many backend calculations are coded in C++ using the IMSL library and called through Java Native Interface (JNI). The system uses an Oracle database running on a Sun workstation. Server side software requirements are IMSL library CNL 5.0, OC4J v1.0.2.2.1, Oracle 9i AS 9.0.2.0.0A, JNI 1.3.1, and JDK 1.3.1.

The end-user workstation requirements are minimal. Internet Explorer 5.5 or 6 running on Windows 2000 or XP is the recommended web browser. However, other web browsers such as Mozilla Firefox should also deliver the optimal user experience. Typically, the manufacturer's minimal feature for a given web browser and operating system combination is sufficient for an optimal operation of the application.

C-5 Verification*

*(*Significant Revision)*

General

For each component, the modeler shall maintain procedures for verification, such as code inspections, reviews, calculation crosschecks, and walkthroughs, sufficient to demonstrate code correctness.

FPHLM software verification is done in three stages.

- Code inspection and verification by the code developer (verification by the person who implemented the code).
- Inspection of the input and validation of the output by the system modeler (verification of results by the person who developed the system model).
- Review and extensive testing of the code by an external group of software engineers.

The first level of verification includes code-level debugging, walking through the code to ensure a proper flow, inspection of internal variables through intermediate output printing and error logging, use of exception handling mechanisms, calculation cross checks, and verification of the output against sample calculations provided by the system modeler.
In the second level of the verification, the modeler is provided with a sample input and corresponding output. Then the modeler conducts black box testing to verify the results against his/her model.

Component Testing

1. ***The modeler shall use testing software to assist in documenting and analyzing all components.***

Component testing (C-5.B) and Data testing (C-5.C) are done in the third level of verification. The system is rigorously checked for the correctness, precision, robustness and stability of the whole system. Calculations are performed outside the system and compared against the system generated results to ensure the system correctness. Extreme and unexpected inputs are given to the system to check the robustness. Wide series of test cases are developed to check the stability and the consistency of the system.

These verification procedures are properly documented and are available for inspection.

2. ***Unit tests shall be performed and documented for each component.***

Unit testing is done at the first and third levels of verification. The developer tests all the units as the unit is developed and modified. Then all the units are tested again by the external testing team. Both “black-box” and “white-box” tests are performed and documented in a separate Testing Document.

3. ***Regression tests shall be performed and documented on incremental builds.***

Regression testing is performed for each module. In this kind of testing methodology, the modules which have undergone some changes and revisions are retested to ensure that the changes have not affected the entire system in any undesired manner.

4. ***Aggregation tests shall be performed and documented to ensure the correctness of all model components. Sufficient testing shall be performed to ensure that all components have been executed at least once.***

Aggregation testing is performed at all three levels of verification. Aggregation testing is performed by running each major module as a complete package. It is ensured that all components have been executed at least once during the testing procedure. All the test cases executed are described in Software Testing and Verification documentation.

Data Testing

1. ***The modeler shall use testing software to assist in documenting and analyzing all databases and data files accessed by components.***

FPHLM uses an Oracle database to store the required data. Data integrity and consistency are maintained by the database itself. Moreover, different queries are issued and PL/SQL is implemented to check the database. Oracle 9i has a very robust loader. It is used to load the data into the database. The loader maintains a log which depicts if the loading procedure has taken place properly and completely without any discrepancy. Data files are manually tested using commercial data manipulation software such as Excel and Access.

2. ***The modeler shall perform and document integrity, consistency, and correctness checks on all databases and data files accessed by the components.***

All the tests are well documented in a separate Testing Document.

Disclosures

1. State whether the model produces the same loss costs if it runs the same information more than once without changing the seed of the random number generator.

The model produces the same loss costs if it runs the same information more than once without changing the seed of the random number generator.

2. Provide an overview of the component testing procedure.

FPHLM software testing and verification is done in three stages.

[A] Code inspection and the verification by the code developer

The code developer would carry out a sufficient amount of testing on the code, and wouldn't deliver the code until he/she is convinced of proper functionality and robustness of the code.

The first level of verification includes code-level debugging, walking through the code to ensure proper flow, inspection of internal variables through intermediate output printing and error logging, use of exception handling mechanisms, calculation cross checks, and verification of the output against sample calculations provided by the system modeler.

[B] Verification of results by the person who developed the system model

Once the first level of testing is done, the developer should send the sample inputs and the generated results back to the modeler. Then the system modeler would double-check the results against his/her model. The code is not put into the production environment without the approval from the modeler.

[C] Review and extensive testing of the code by external group of software engineers

The system is rigorously checked for the correctness, precision, robustness and stability of the whole system. Calculations are performed outside the system and compared against the system generated results to ensure the system correctness. Extreme and unexpected inputs are given to the system to check the robustness. Wide series of test cases are developed to check the stability and the consistency of the system.

Unit testing, Regression testing, and Aggregation testing (both white-box and black-box) are performed and documented.

Any flaw in the code is reported to the developer, and the bug-corrected code is again sent to the tester. The tester should perform unit testing again on the modified units. Regression testing should be carried out to check if the modification affects any other parts of the code.

Different Testing Tools and Software packages are used to test different components of the system. The detailed list of the various testing tools and/or techniques used for different components of the system is provided in the main document for audit.

C-6 Model Maintenance and Revision

A. The modeler shall maintain a clearly written policy for model revision, including verification and validation of revised components, databases, and data files.

FPHLM model will be periodically enhanced to reflect the new knowledge acquired on hurricanes and Florida zip code information. FPHLM maintains a clearly written policy for model revision.

B. A revision to any portion of the model that results in a change in any Florida residential hurricane loss cost shall result in a new model version number.

Whenever a revision results in a change in any Florida residential hurricane loss cost, a new model version number will be assigned to the revision. Verification and validation of the revised units is repeated according to the above mentioned "software verification procedures" document.

C. The modeler shall use tracking software to identify all errors, as well as modifications to code, data, and documentation.

FPHLM uses CVS (Concurrent Versions System) for version controlling. CVS is a production quality system used widely in commercial and educational research-oriented projects around the world. We can record the history of source files and documents by utilizing CVS.

Disclosures

1. Identify procedures used to maintain code, data, and documentation.

FPHLM's software development team employs source revision and control software for all software development. In particular, FPHLM employs Concurrent Versioning System (CVS), an accepted and effective system for managing simultaneous development of files. It is in common use in large programming projects to track the modifications to the source code and documentation files. CVS maintains a record of the changes to each file, and allows the user to revert to a previous version, merge versions, and track changes. This software is able to record the information for each file, the date of each change, the author of each change, the file version, and the comparison of the file before and after the changes. The detailed information will be made available to the Professional Team during its site visit.

C-7 Security*

*(*Significant Revision)*

The modeler shall have implemented and fully documented security procedures for: (1) secure access to individual computers where the software components or data can be created or modified, (2) secure operation of the model by clients, if relevant, to ensure that the correct software operation cannot be compromised, (3) anti-virus software installation for all machines where all components and data are being accessed, and (4) secure access to documentation, software, and data in the event of a catastrophe.

FPHLM maintains a set of security procedures to protect data and documents from deliberate and inadvertent changes. These procedures include both physical and electronic measures. There are a set of policies identifying different security issues and addressing each of them. All the security measures are properly documented and attached to the primary document binder.

Disclosures

1. Describe methods used to ensure the security and integrity of the code, data, and documentation.

Electronic measures include the use of different authorization levels, special network security enforcements, and regular backups. Each developer is given a separate username and password, and assigned with a level of authorization so that even a developer cannot change some other developer's code. The users of the system are given usernames and passwords so that unauthorized users cannot use the system. External users are not allowed direct access to any of the data sources of the system. The network is extensively monitored for any unauthorized actions using standard industry practices. Since the system runs on a Linux sever environment, minimal virus attacks are expected.

Any sensitive or confidential data (insurance data, for example) are kept on an unshared disk on a system which has user access control and requires a login. Screen locks are used whenever the machine is not attended. In addition, for system security and reliability purposes, we also deploy a development environment besides the production environment. Modifications to the code and data are done in the development environment and tested by in-house developers. The final production code and data can only be checked into the production environment by the authorized personnel. The models resulting from FPHLM project can only be used by the authorized users. Authorized user accounts are created by the project manager. Regular backups of the server are taken and stored separately physically and electronically. Backups are performed on a daily basis and are kept for six weeks. Nightly backups of all UNIX data disks and selected Windows data disks (at user requests) are performed over the network onto LT02 and LT03 tapes. The tape drives have built in diagnostics and verification to ensure that the data is written correctly to the tapes. This ensures that if the tape is written successfully, it will be readable, provided no physical damage occurred to the tape. A copy of each backup is placed in a secure and hurricane protected building. Additionally, the application server and the database server are physically secured in a secure server room with alarm systems. In case of disasters, we have implemented a set of preparation procedures and recovery plans as outlined in “FIU SCS Hurricane Preparation Procedures”.

Assessment of the meteorological portion of the State of Florida Public Hurricane Model

February 15, 2007

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School of Ocean and Earth Science and Technology
University of Hawaii at Manoa

Introduction

My review of the State of Florida Public Hurricane Model is based on a three day visit to Florida International University in December, and an examination of the submission draft provided to me in February. I have had full access to the meteorological portion of the model, access to the draft for the Florida commission, and access to prior submittals to the commission from several other groups in order to establish a sense of what is desired by the commission. I am pleased to report that the issues that I have raised have received their attention and I believe that the model meets all the standards set forth by the commission. Ultimately this model, when linked to engineering and actuarial components, will provide objective guidance for the estimation of wind losses from hurricanes for the state of Florida. It does not address losses from other aspects of a tropical cyclone such as storm surge, or fresh water flooding. I now offer specific comments on each of the six meteorological standards established by the commission to ascertain this model's suitability.

M-1 Official Hurricane Set

The consortium of scientists working on the Public model have adopted HURDAT (1900-2006) to determine landfall frequency and intensity at landfall. The NWS report by Ho et al. (1987), DeMaria's extension of the best track, H*Wind analyses (Powell et al. 1996a, 1996b, 1998) and NOAA Hurricane Research Division aircraft data are used to estimate the radius of maximum winds (RMW) at landfall. The strength of HURDAT is that it is the most complete and accessible historical record for hurricanes making landfall or passing closely by Florida. HURDAT weaknesses include the abbreviated record and questionable intensity estimates for those hurricanes early in the record, especially those that remain offshore. Evidence for the shortness of record is the impact of the last few hurricane seasons on landfall return frequency. The meteorological team has scrutinized the base set developed by the commission and made a number of adjustments to the dataset based on refereed literature and the HURDAT record. I have looked at several of these adjustments in detail and find the corrections to be an improvement over the initial base set.

M-2 Hurricane Characteristics

The model has two main components. The track portion of the model produces a storm with either an initial location or genesis point and an intensity that is derived from an empirical distribution derived from HURDAT (2006). Storm motion and intensity is then initialized by using a Monte Carlo approach, drawing from probability density functions (PDFs) based on the historical dataset to create a life for a bogus hurricane. Examination of the PDFs reveals that they are faithful to the observed patterns for storms nearing Florida, and the evolution of any particular hurricane appears realistic.

The second component of the meteorological model is the wind field generated for a given hurricane, which only comes into play when the hurricane comes close enough to place high winds over any given zip code of Florida. To generate a wind field the minimum sea-level pressure (MSLP) found in the eye, the RMW at landfall, and a distant environmental pressure (1013 mb) are entered into the Holland (1980) B model for the axisymmetric pressure distribution around the hurricane. The behavior of the RMW is based on a variety of sources that include Ho et al. (1987), DeMaria's extension of the best track data, H*wind analyses, and aircraft reconnaissance radial wind profiles. The B coefficient is based on the extensive aircraft dataset acquired in reconnaissance and research flights over the last few decades. RMW and B use a random or error term to introduce variety into the model. The Holland pressure field is used to produce a gradient wind at the top of the boundary layer. The winds in the boundary layer are estimated following the work proposed by Ooyama (1969) and later utilized by Shapiro (1983) which includes friction and advection effects. These boundary layer winds are reduced to surface winds (10 m) using reduction factors based on the work of Powell et al. (2003). Maximum sustained winds and 3 second gusts are estimated using the guidance of Vickery and Skerlj (2005). Once the hurricane winds come ashore there are further adjustments to the wind to account for local roughness as well as the roughness of the terrain found upstream of the location under scrutiny. The pressure decay of the hurricane is modeled to fit the observations presented by Vickery (2005).

Gradient balance has been demonstrated to be an accurate representation for vortex scale winds above the boundary layer by Willoughby (1990) and is a fine initial condition. The slab boundary layer concept of Ooyama and Shapiro has been shown to produce wind fields much like observed once storm translation and surface friction come into play. The reduction to 10 m altitude is based on Powell et al. (2003); they use the state of the art Global Positioning System sondes to compare surface and boundary layer winds.

Perhaps the most questionable part of the wind portion of the model is the reliance on the estimates of the RMW at landfall. The scatter in RMW for a given MSLP is large; larger RMWs coupled with the B parameter control the size of the annulus of the damaging winds. The typical length of an aircraft leg from the eye is about 150 km so the choice of the B parameter is based on a small radial distance in the majority of hurricanes. The collection of quality wind observations over land in hurricanes remains a daunting task; therefore the actual response of the hurricane winds to variations in roughness is less certain. Applying roughness as a function of zip code is a coarse approximation to reality. However, this is the approach chosen by the commission, and given the data limitations, a reasonable course to take.

M-3 Landfall Intensity

The model uses one minute winds at 10 m elevation to determine intensity at landfall and categorizes each hurricane according to the Saffir-Simpson classification. The model considers any hurricane that makes landfall or comes close enough to place high winds over Florida. Multiple landfalls are accounted for, and decay over land between these landfalls is also estimated. Maximum wind speeds for each category of the Saffir-Simpson scheme are reasonable as is the worst possible hurricane the model generates. Simulations are conducted for a hypothetical 60,000 years. Any real climate change would alter results, but maybe not as much as have an actual record of order of 1,000 years to base the PDFs on.

M-4 Hurricane Probabilities

Form M-1 demonstrates that the model is simulating the landfalls very well for the entire state, region A (NW Florida) and region B (SW Florida). There are subsections of the state where the historical and the simulated landfalls have a discrepancy. In region C (SE Florida) the observations show an unrealistic bias toward category 3 storms. This is likely due to an overestimate of intensity for the hurricanes prior to the advent of aircraft sampling or advanced satellite techniques. The historical distribution for region C also does not fit any accepted distributions that we typically see for atmospheric phenomena. This discrepancy is probably due to the shortness of the historical record. I note that other models also have difficulty with this portion of the coast. I believe the modeled distribution, based on tens of thousands of years, is more defensible than the purported standard. Regions D (NE Florida) and E (Georgia) have virtually no distribution to simulate, again pointing to a very short historical record. There is no documented physical reason why these two regions have escaped landfall events. Perhaps a preferred shape of the Bermuda High may bias the situation, but this remains speculative.

M-5 Land Friction and Weakening

Land use and land cover are based on high resolution satellite imagery. Roughness for a particular location is then based on HAZUS tables that assign a roughness to a particular land use. There are newer assessments from other groups but the techniques were not consistently applied throughout the state, nor are the updated HAZUS maps for 2000 available yet. Winds at a particular location are a function of the roughness at that point and conditions upwind. A pressure decay model based on the work of Vickery (2005) produces weakening winds that are reasonable approximations of the observed decay rates of several hurricanes that made landfall in Florida in 2004 and 2005.

The maps (Form M-2) of the 100 year return period maximum sustained winds shows the following trends: (1) a reduction in the sustained winds from south to north, (2) a reduction of winds from coastal to inland zip codes, and (3) the highest winds in the Keys and along the SE and SW coasts. The plotting thresholds requested by the commission partially obfuscate the gradients in wind speed, but Form M-2 produced with finer contours highlights the above trends clearly. The open terrain maps look logical; the actual terrain maps are perhaps overly sensitive to the local roughness. Convective scale motions, which cannot be resolved in this type of model, would probably be responsible for making the winds closer to the open terrain results.

M-6 Logical Relationships of Hurricane Characteristics

The RMW is a crucial but poorly measured variable. Making RMW a function of intensity and latitude explains only a small portion of the variance (~20%). Examination of aircraft reconnaissance radial profiles shows that RMW is highly variable. Currently there are no other schemes available to explain more of the variance. Form M-3 reflects the large range of RMW. Note that only the more intense hurricanes (MSLP < 940 mb) show a trend, and only with the upper part of the range. Even open ocean studies of the RMW show such large scatter.

Tests done during my visits show that wind speed decreases as a function of roughness, all other variables being held constant. The evolution of the wind field as a hurricane comes ashore is logical.

Summary

The consortium that has assembled the meteorological portion of the Public Model for Hurricane Wind Losses for the State of Florida is using the HURDAT with corrections based on other refereed literature. These data yield a series of probability density functions that describe frequency, location, and intensity at landfall. Once a hurricane reaches close enough to the coast the gradient winds are estimated using the equations by Holland (1980), then a sophisticated wind model (Ooyama 1969, Shapiro 1983) is applied to calculate the boundary layer winds. Reduction of this wind to a surface value is based on recent boundary layer theory and observations. Here the consortium has exploited other sources of data (e.g., NOAA/AOML/HRD aircraft wind profiles and GPS sondes) to produce a surface wind field. As the wind field transitions from marine to land exposure changes in roughness are taken into account. Form M-1 (frequency and category at landfall as a function of coastal segment) and Form M-2 (100 year return maximum sustained winds for Florida) highlight the good performance of the model.

I suspect that the differences between the historical record and the simulation are largely due to the shortness and uncertainty of the record. If the consortium had the luxury of 1000 years of observations agreement between the record and the simulation would be improved. I believe that the meteorological portion of the model is meeting all the standards established by the commission. Tests of the model against H*Wind analyses and the production of wind speed swaths go beyond the typical quality controls of prior models and demonstrate that this model is worthy of consideration by the commission.

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June 12, 2007

Dr. Shahid Hamid
Professor of Finance,
Department of Finance, CBA
and International Hurricane Research Center
Florida International University, RB 202 B
Miami, FL 33199

Re: Florida Public Hurricane Loss Model
Version 2.6
Independent Actuarial Review

Dear Dr. Hamid:

AMI Risk Consultants, Inc. was engaged by the International Hurricane Research Center ("IHRC") at Florida International University ("FIU") to review the actuarial components of its hurricane model, ***Florida Hurricane Loss Model, Version 2.6***. I am a Fellow of the Casualty Actuarial Society, a Member of the American Academy of Actuaries, and have thirty-five years of actuarial experience in the property/casualty insurance industry.

AMI's review was based the IHRC's June 12, 2007 model submission to the Commission and on a technical description of the model's methodology provided to me by the IHRC. In performing the review, AMI's approach was to review various documents, forms and databases. AMI attended several on site meetings and conference calls and also performed independent analysis, raised questions and issues and performed various required tests.

AMI did not participate in the actual construction of the model, except for the development of the Demand Surge model. For the remainder of the model, we reviewed the model's inputs, outputs and operations in detail.

Our review focused on the following areas:

- The IHRC's responses to the Commission's actuarial standards A-1 through A-10 as contained in the filing to the Commission.
- Forms A-1 through A-7 as submitted to the Commission.

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In evaluating compliance with the standards, some of the work we did included the following:

Standard A-1: We tested bypassing storms from the stochastic set to see if they were correctly included or excluded.

Standard A-2: We analyzed and tested the approach used to deal with duplicate, missing and invalid records in the validation data. Furthermore, we reviewed the data call used to request data from insurance companies.

Standard A-3: We reviewed the method used to estimate loss costs for ratemaking, including sample manual calculations of loss costs.

Standard A-4: We helped develop the Demand Surge Model; consequently, we think the model methodology and assumptions are reasonable.

Standard A-5: We reviewed and analyzed the input form, the Validation Automation Program, the Matlab Plotting Program and the pre-processing check list.

Standard A-6: We tested the loss cost outputs to determine any illogical relation to risk (coverage, construction, territories, deductibles, etc). We also reviewed the model vs actual graphs presented by the modelers.

Standard A-7: We reviewed and tested the method to reflect deductibles and policy limits in the model, tested the relationship among modeled deductible loss costs for reasonableness and tested the deductible loss cost calculations to determine if it is in accordance with 627.701(5)(a), F.S.

Standard A-8: We reviewed the method used to calculate loss cost for contents relating to personal residential structures and compared historical actual vs estimated loss cost.

Standard A-9: We reviewed the method used to calculate loss cost for ALE and compared historical actual vs estimated loss cost.

Standard A-10: We reviewed output ranges generated by the model and reported anomalies to the modeler.

For Forms A-1 and A-6, some of the work we did included checking the loss cost relativities by region, the expected inverse relationship to deductible size. For Form A-5 we examined the calculation of return years, and verified that return years increase with increasing average loss.

Dr. Shahid Hamid
Version 2.6 Independent Review
June 12, 2007

Based on our review, in my opinion, the IHRC hurricane model reflects reasonable actuarial assumptions and meets the Commission's actuarial standards A-1 through A-10.

If you have any questions about my review, I would be happy to discuss them.

Sincerely,

Aguedo (Bob) Ingco, FCAS, MAAA, CPCU, ARM
President

AMI Risk Consultants, Inc.