# Data - A Valuable Commodity



Program Administrators Association

"Where Program Business Gets Done"

**Property Lines of Business** 





# Agenda

- 1. Why Quality Data Matters
- 2. Property Data Elements
- 3. Case Study

BMS



### Flow of Data in the Industry



BMS

### **Benefits of Quality Data**

- Better manage and understand your own business
- Create stronger relationships with carriers
- Greater access to capital
- Differentiate your business from similar opportunities in the market
- Improved customer satisfaction

### How Do Carriers Evaluate Risk?

The Decision to Accept Risk is Effectively a Cost/Benefit Analysis

Premium - (Expenses + Commissions + Expected Cat Loss + Non-Cat Loss) = Profit/Loss

**Key Considerations** 

- Correlation with the current portfolio
- Additional volatility a given risk or group of risks add
- Reinsurance costs
- Rating/regulatory implications

Methods Used for Evaluation

- Experience/Historical Performance
- Catastrophe Models
- Industry Data
- Proprietary Methods and Data





### **Minimum Industry Standards**

### Location Data

- Policy Number
- Location Identifier
- Street Address
- Postal Code
- City
- State

#### **Financial Details**

- Building Value
- Contents Value
- Business Interruption Value
- Policy/Location Deductibles
- Policy/Location Limits
- Premium

#### **Structural Detail**

- Construction
- Occupancy
- Year Built
- Number of Stories

### Accuracy and Completeness are not the same

### **Enhanced Data Elements**

### Location Data

- Policy Number
- Location Identifier
- Street Address
- Postal Code
- City
- State
- Latitude/Longitude

#### **Financial Details**

- Building Value
- Contents Value
- Business Interruption Value
- Policy/Location Deductibles
- Policy/Location Limits
- Premium
- Peril specific deductibles
- Peril specific limits/sublimits
- Coverage specific limits
- Coverage specific deductibles
- Exclusions

#### **Structural Details**

- Construction
- Occupancy
- Year Built
- Number of Stories
- Square Footage
- Sprinkler Systems & Types
- Roof Characteristics
- Opening Characteristics
- Flood Mitigation
- Elevation
- Distance to Fire Stations
- On-premise Equipment
- Floor of Interest
- Ornamentation
- Vulnerable Contents

### **Common Data Quality Issues**

#### General

- Policy/location duplication
- Unique policy and location identifiers
- Incomplete schedule of locations

#### Address Information

- Missing street address
- Bulk coding of locations to primary address

#### **Policy Terms**

- Missing/mis-coded limits and deductibles
  - Hurricane
  - Wind/Hail
  - Earthquake
  - Flood
  - Terrorism
- Insurance to value
- Exclusions
- Business interruption

#### **Risk Characteristics**

- Missing information
- Bulk coding
- Invalid combinations





### Wossamotta University

Initial Data Submission Sample

- Address = 10501 Wossamotta Boulevard South, Frostbite Falls, MN 55555
- Insured Value = \$440,000,000
- Construction = Unknown
- Occupancy = Universities and Colleges
- Number of Stories = Unknown
- Year of Construction = Unknown

Analysis Assumptions

• Premium = Expected Loss + (30% \* Standard Deviation)





### Iteration 1: Initial Data Submission

- All insured values at single point address
- Insured values assumed to be all building values
- Construction = Unknown
- Occupancy = Universities and Colleges
- Number of Stories = Unknown
- Year of Construction = Unknown

Expected Loss: \$1.6M CoV: 12.377 Premium: \$7.7M







### Wossamotta University





### Sports Arena





### Parking





### **Student Housing**





### University or Resort?









### What Was I Thinking?!





### Iteration 2: Add Specific Building Detail & Coverage Splits

- 2. Insured values assigned to specific latitudes/longitudes and split between building, contents and business interruption coverages
- 3. Specific occupancies assigned to key structures
- 4. Construction = Unknown
- 5. Year of Construction = Unknown
- 6. Number of Stories = Unknown

Expected Loss: \$1.4M CoV: 5.978 Premium: \$4.0M





### Iteration 3: Add Occupancy

- 2. Insured values assigned to specific latitudes/longitudes and split between building, contents and business interruption coverages
- 3. Specific occupancies assigned to key structures
- 4. Construction = Unknown
- 5. Year of Construction = Unknown
- 6. Number of Stories = Unknown

Expected Loss: \$1.3M CoV: 6.054 Premium: \$3.7M





### Iteration 4: Add Construction

- 2. Insured values assigned to specific latitudes/longitudes and split between building, contents and business interruption coverages
- 3. Specific occupancies assigned to key structures
- 4. Construction = Reinforced Concrete
- 5. Year of Construction = Unknown
- 6. Number of Stories = Unknown

Expected Loss: \$1.1M CoV: 6.148 Premium: \$3.0M





### Iteration 5: Add Year of Construction

- 2. Insured values assigned to specific latitudes/longitudes and split between building, contents and business interruption coverages
- 3. Specific occupancies assigned to key structures
- 4. Construction = Reinforced Concrete
- 5. Specific building ages added to key structures
- 6. Number of Stories = Unknown

Expected Loss: \$564K CoV: 7.899 Premium: \$1.9M





### Iteration 6: Add Number of Stories

- 2. Insured values assigned to specific latitudes/longitudes and split between building, contents and business interruption coverages
- 3. Specific occupancies assigned to key structures
- 4. Construction = Reinforced Concrete
- 5. Specific building ages added to key structures
- 6. Number of Stories = 4



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Expected Loss: \$464K CoV: 8.456 Premium: \$1.6M

	Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5	Iteration 6	Total Chg.
Expected Loss	1,623,521	1,433,231	1,326,686	1,070,632	564,085	463,867	-71.4%
CoV	12.377	5.978	6.054	6.148	7.899	8.456	-31.7%
Premium	7,651,750	4,003,773	3,736,364	3,045,202	1,900,735	1,640,595	-78.6%

### Wossamotta University

**Other Considerations** 

- Lutgert Hall has a large statue at its entrance
- There is a solar panel field near the entrance of the campus supplies 85% of power needs for Lugert and Holmes Halls
- Ice thermal storage plant sends chilled water through an underground loop to cool campus buildings
- Roof top solar panels are used to heat water in newest residence halls
- The library contains 7 signed lithographs by Salvador Dali





### Salvador Dali - Persistence of Memory





Proprietary & Confidential

# Summary

- The industry is driven more by technology and data that ever before
- Proper data collection demonstrates your knowledge of a portfolio to risk takers
  - Establishes credibility and strong carrier relationships
  - Greater access to capital
- Strive for completeness and accuracy of the primary data components
  - Characteristics considered to be secondary will soon become mainstream
- Use the tools available to gain further knowledge of insured risks

# Thank You

