Property/Casualty Insurance: A Brief Tour

University of Missouri
Columbia, Missouri
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I.I.I. Mission Statement

Improving public understanding of insurance...

...what it does and how it works.
How Insurance Drives Economic Growth

Safety/Security
1. Insurers are financial first responders
2. Insurers are risk mitigators

Economic/Financial Stability
3. Insurers are capital protectors
4. Insurance is a partner in social policy
5. Insurance sustains the supply chain
6. Insurers are capital infusers

Development
7. Insurers are community builders
8. Insurance enables infrastructure improvements
9. Insurers are innovation catalysts
10. Insurers are credit facilitators
Insurance and Agriculture
Our Priorities In 2019 Continue To Reflect Where Industry & Customer Conversations Are Focused
The Need for Resilience

Extreme Weather Threatens Union
A Small Town in Missouri
1982 Union, Missouri, Flood
A Storm for the Ages

Bourbeuse River
Record Crest
33.8 feet
12/5/1982

Source: Fox2News.com, @BoxxRadio.
2015 Union, Missouri, Flood
A Storm for the Ages

Bourbeuse River
Record Crest
34.3 feet
12/29/2015

Sources: CBSnews.com; fox2news.com
2017 Union, Missouri, Flood
“Unfortunately, it’s a river and Mother Nature. And we can’t control her.”

2019: Union, Missouri, Embraces Resilience
Community Hardening

Dickey Bub Berm

Shopping on One Side

Park on the Other
## Extreme Events: A Troubling Trend

<table>
<thead>
<tr>
<th>Rank</th>
<th>Date</th>
<th>Event</th>
<th>Cause</th>
<th>Insured Loss (1) ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug. 2005</td>
<td>Hurricane Katrina</td>
<td>Hurricane</td>
<td>$41,100</td>
</tr>
<tr>
<td>2</td>
<td>Sep. 2017</td>
<td><strong>Hurricane Maria (2)</strong></td>
<td>Hurricane</td>
<td><strong>25,000-30,000</strong></td>
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<tr>
<td>3</td>
<td>Sep. 2017</td>
<td><strong>Hurricane Irma (2)</strong></td>
<td>Hurricane</td>
<td><strong>20,000-25,000</strong></td>
</tr>
<tr>
<td>4</td>
<td>Sep. 2001</td>
<td>September 11 Events</td>
<td>Terrorism</td>
<td>18,779</td>
</tr>
<tr>
<td>5</td>
<td>Oct. 2012</td>
<td>Hurricane Sandy</td>
<td>Hurricane</td>
<td>18,750</td>
</tr>
<tr>
<td>6</td>
<td>Aug. 2017</td>
<td><strong>Hurricane Harvey (2)</strong></td>
<td>Hurricane</td>
<td><strong>16,000-19,000</strong></td>
</tr>
<tr>
<td>7</td>
<td>Aug. 1992</td>
<td>Hurricane Andrew</td>
<td>Hurricane</td>
<td>15,500</td>
</tr>
<tr>
<td>8</td>
<td>Jan. 1994</td>
<td>Northridge, CA earthq</td>
<td>Earthquake</td>
<td>12,500</td>
</tr>
<tr>
<td>9</td>
<td>Sep. 2008</td>
<td>Hurricane Ike</td>
<td>Hurricane</td>
<td>12,500</td>
</tr>
<tr>
<td>10</td>
<td>Oct. 2005</td>
<td>Hurricane Wilma</td>
<td>Hurricane</td>
<td>10,300</td>
</tr>
</tbody>
</table>

(1) Dollars when occurred.
(2) Insurance Information Institute estimate based on data from catastrophe risk modelers, the Property Claims Services unit of Verisk Analytics, et al.
Source: Insurance Information Institute, catastrophe risk modelers, The Property Claim Services® (PCS®) unit of ISO®, a Verisk Analytics® company, et al.
Insurance Leading Throughout History

- 1648: Edward Lloyd's Coffee House
- 1784: Steam, Water, Mechanical Production
- 1870: Division of Labor, Electricity, Mass Production
- 1969: Electronics, IT, Automated Production
- ???: Cyber-Physical Systems

Cyber-Physical Systems
Case Study: Offshore Wind Power
Growth of Wind Power Capacity in the U.S.

By 2050 total wind power capacity across 48 states will be 404.25 gigawatts, an increase of 180.15 gigawatts from 2030.

Source: Energy.gov
Cost of Alternative Energies is Falling

LOCO: Levelized cost of energy – cost of producing MWh of electricity, accounting for cost of development, construction and equipment, financing, feedstock, operation and maintenance
Source: BloombergNEF.
Offshore wind farms pros and cons

**Pros**
- Offshore wind speeds are faster and steadier than on land
- Meet energy needs of high-density coastal areas
- Renewable energy with no pollution
- Domestic energy source
- Jobs

**Cons**
- Expensive and difficult to build and maintain
- Effects on marine animals and birds are not fully understood
- May be unpopular with residents

Source: American Geosciences Institute
## Key risks faced by wind farms

<table>
<thead>
<tr>
<th>Risk</th>
<th>Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo in transit</td>
<td>Marine</td>
</tr>
<tr>
<td>Construction problems</td>
<td>Construction delay cover</td>
</tr>
<tr>
<td>Mechanical, cable issues</td>
<td>Property damage cover</td>
</tr>
<tr>
<td>Lightning strike</td>
<td>Business interruption</td>
</tr>
<tr>
<td>Terrorism</td>
<td>Political risk</td>
</tr>
<tr>
<td>‘Wind drought’</td>
<td>Weather hedge</td>
</tr>
</tbody>
</table>

Cannabis and Insurance
Support for Legalization Grows

% Saying Yes

“Do You Think the Use of Marijuana Should Be Made Legal, Or Not?”

No survey in years where no data appears.
Support for Legalization Grows

“Do You Think the Use of Marijuana Should Be Made Legal, Or Not?”

SOURCES: Gallup Poll Social Series, [http://news.gallup.com/poll/221018/record-high-support-legalizing-marijuana.aspx](http://news.gallup.com/poll/221018/record-high-support-legalizing-marijuana.aspx)
Driving While High
The Science

Review of Literature

- Conclusive evidence
  - Improves the lot of adults in chronic pain.

- Substantial evidence
  - Increases the risk of motor vehicle crashes.

THC Levels not an Accurate Indication of Impairment

BAC and ‘feeling drunk’ rise and fall in lockstep

THC levels in blood and ‘feeling high’ rise and fall at different rates

Weed Spreads Like Wildfire. Insurers Caught in the Middle

Current marijuana laws by state

- Fully legal
- Medical use legal and recreational use decriminalized
- Medical use legal
- Recreational use decriminalized
- Fully illegal

Sources: – Map - National Journal; Ballotpedia, 2019
Collision Frequency – IIHS, LEGAL POT: Crashes are up in states with retail sales, October 18, 2018
Current Marijuana Laws by State

*CBC/Low THC medical program.
What Do We Know About Workplace Safety in the Age of Legal Marijuana?

Many factors influence impairment onset, intensity, and duration

- Product potency – THC levels
- Method of consumption and type of product
- User characteristics

Marijuana intoxication impairs coordination, memory, associative learning, attention, cognitive flexibility and reaction time.

Source: Insurance Information Institute, *Haze of confusion: How employers and insurers are affected by a patchwork of state marijuana laws*, June 2019
Off-duty Medical Marijuana Use and Employment Protections

*CBD/Low THC medical program. †Oklahoma has not yet released its final medical marijuana rules. ‡Provides limited protections to state employees.

Source: Insurance Information Institute, 2019.
Medical Marijuana is not a Prescription Drug

**Medical marijuana is:**
- Not prescribed but recommended for a qualifying patient by a physician.
- Not approved by the FDA as a safe and effective drug.
- Not dispensed through pharmacies.

**Prescription drugs are:**
- Supported by research that identifies dosages and plans of care.
- Regulated by the FDA.
- Procured from a licensed pharmacist.
Marijuana and Workplace Accidents

- Most states restrict benefits if employee was intoxicated or if intoxication was proximate cause of injury
- Some states limit compensation if employee refuses drug test
- Presumption of positive drug test indicating impairment
- Rebuttable presumption

Recreational marijuana and the workplace

No state protects on-duty recreational marijuana use. State laws will often explicitly state that recreational marijuana laws do not affect an employer’s drug-free workplace policy.
Is Medical Marijuana Covered by Comp?

- Reimbursable in a handful of states
- Unclear whether reimbursable in many states
- Reimbursement not required
- Reimbursement prohibited or ineligible

Many state medical marijuana laws specifically exempt certain entities from the reimbursement requirement, usually health insurance providers.
New Mexico is the Only State That Provides a Fee Schedule for Medical Marijuana⁴

<table>
<thead>
<tr>
<th>Maximum reimbursable amount</th>
<th>In context</th>
</tr>
</thead>
<tbody>
<tr>
<td>$12.02 per gram or $11,056 per year</td>
<td>If a one-gram joint costs $12, that's 921 joints per year</td>
</tr>
</tbody>
</table>

¹“Healthcare Provider Fee Schedule and Billing Instructions,” State of New Mexico Workers’ Compensation Administration.
Reimbursement Complications

• Cash-only business
• Proper dosages poorly understood, non-standardized
• No standardized “serving” of marijuana. Potency levels non-standardized
• Expenses can vary widely
Thank you for your time and your attention!