# Cyber Risk Landscape facing Tech Colleges

## About NetDiligence®

- 15+ years supporting the cyber liability insurance industry.
- For loss control service, we support the majority of cyber liability insurance markets.
- We conduct cyber risk assessments on organizations – and their vendors – all sizes and sectors.
- We build/ host Breach Response Plans
- We also support most (60+) cyber risk insurers – and their insured clients – with post data breach crisis support via eRisk Hub

#### Sampling of insurers that we support:

Aegis

HSB

Vela

Zurich

AIG

- Ironshore
- XL

Allianz

Arch

- KilnLiborty
- Liberty

Argo

- Markel
- Aspen

National

Axis

League of

- Barbican
- Cities

- Beazley
- One Beacon
- Berkley
- Philadelphia
- Berkshire
- Principia
- Hathaway
- QBE

• Brit

RLI

Chubb

- Starr
- Cuna Mutual
- Swiss RE
- Culla Mutu
- 5 W 155 TKL

DMI

- Travelers
- Endurance
- Trans Re

Hiscox

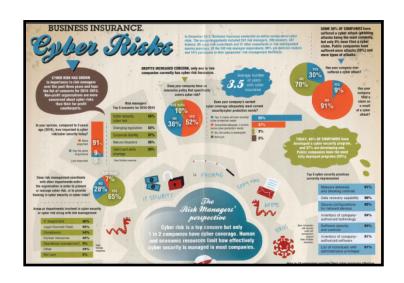
USLI



DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

## Why Are We Here?

#### BUSINESS INSURANCE







## WHATIS CYBER?

WHERE?





**OFFLINE** 

WHO?



**MALICIOUS** 







WHAT?







CRISIS EXPENSE EXTRA EXPENSE

LOST NCOME DEFENSE EXPENSE

PENALTIES

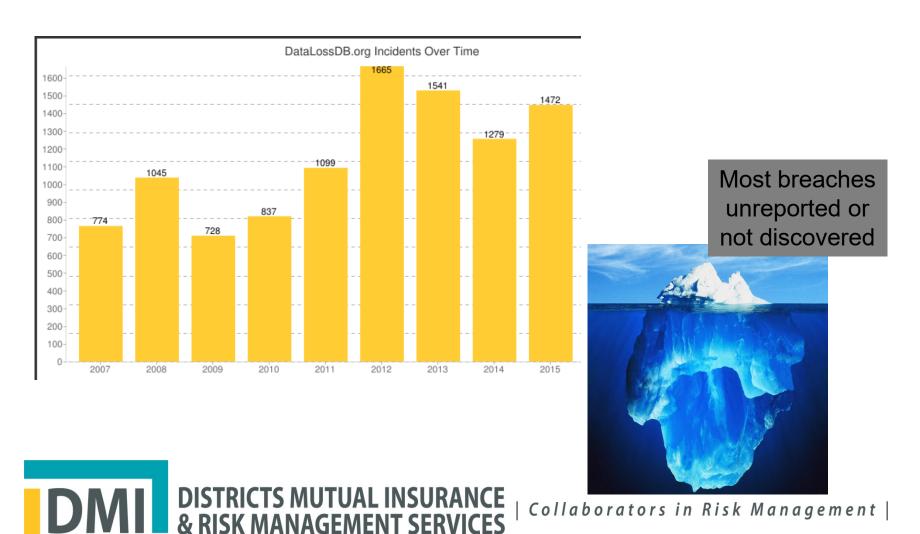
IABILITY



DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

#### Client Concerns: Data Breach Trends

Tip of the iceberg! ... many more (most) undetected or not reported



**April 2017 - Risk Mitigation Seminar** 

## College IT Worry: Data is Everywhere!

#### Tech Colleges Are:

- Highly Dependent on technology
- Collecting/ sharing vast PRIVATE data (students, alum, staff)
- Continuing to outsource (CLOUD)
- Replicating data everywhere
- Finding it difficult to trace data flow (i.e. your data is now in your Cloud's Cloud)



<u>Data & Dependencies are Everywhere:</u> (1.) Servers; (2.) Corp Databases/Web Applications; (3.) Remote Users (Laptops/iPhones); (4.) Back-Up/Storage Facilities; (5.) Service Providers/ CLOUD; (5.b) The Clouds for your Clouds (6.) Contractor systems, (7.) Credit Card Processors; (8.) Mobile Apps (9) your 'Big Data' analytic marketers etc...



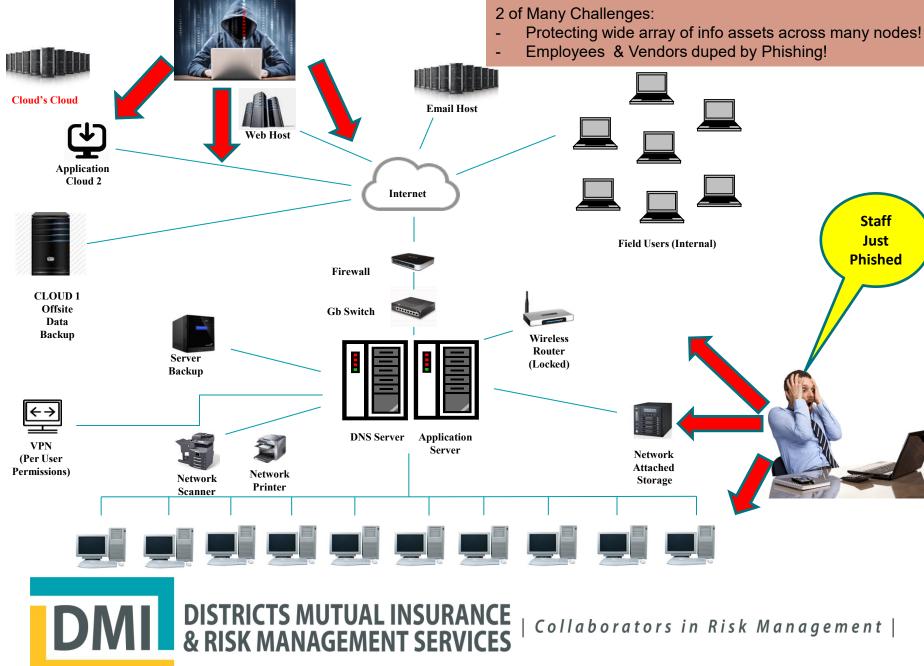
DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

## Cyber Threats Facing Tech Colleges

- Insiders: Malicious and Disgruntled Employees/Students
  - Changing data/ Deleting data/ Destroying data or programs with logic bombs/ Crashing systems/ Holding data hostage/ Stealing & selling data/ Entering data incorrectly
- Outside Attackers or 'Hackers' (they don't know you & don't care if you're large or small)
  - Intrusion / hack
  - DDoS
  - Social Eng (Phish Fight)
  - Email Hacking
  - Extortion
- Viruses & Malware
- Non-Malicious Employees (Email & Mailing errors or lost laptops)
- Non-Malicious System/Coding Glitch
- Trusted 3<sup>rd</sup> Party: BA Vendor/Cloud Breach Coach or Mishap (they control your data or systems)



DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES



**April 2017 - Risk Mitigation Seminar** 

## Growing Concern: Class Action Liability

#### Privacy Data Breach Cases

#### State and Federal Courts

Amburgy v. Express Scripts (2009) Pinter v. D.A. Davidson (2009) Dandridge v. Aurora Health Care (2009) Pisciotta v. Old Nat'l Bancorp (2007) Kahle v. Litton Loan Servicing (2007) Randolph v. ING (2007)

Forbes v. Wells Fargo (2006) Guin v. Brazos Higher Educ. Serv. Corp. (2006) Shames-Yeakel v. Citizens Bank (2009) Claridge v. Rock You (2010) Allison v. Aetna (2009) Valdez-Marnuez v Netflix (2009)

Rowe v. UniCare Life & Health Insurance (2010) AFGE v. Hawley and TSA (2007) McLoughlin v. People's United Bank (2009) Caudle v. Towers, Perrin, Forster & Crosby (2008) Shafran v. Harley-Davidson (2008)

Willey v. J.P. Morgan Chase (2009) Ruiz v. Gap (2008) Ruiz v. Gap (2008)

Belle Chasse Auto Care v. Advanced Auto Parts (206)

Rosano v. PNC Bank (2005)

Bell v. Actiom (2006) Hammond v. The Bank of New York Mellon (2009) Cherny v. Emigrant Bank (2009) Matthys v. Green Tree Servicing (2010) Pinero v. Jackson Hewitt Tax Servo (2009)

Ponder v. Pfizer (2007) Zeldman v. Pershing (2009) Remsburg v. Docusearch (2003) Walters v. DHL (2006)

Kidman v. Wells Fargo (2008) C.S. v. United Bank (2009) Gardner v. Health Net (2010) Hinton v. Monster Worldwide (2009) Hummingbird v. Texas Guaranteed Student Loan Corporation (2006) Thompson v. Hosting Solutions (2007)

Harris v. Mediacom Communications (2007) Zelchenko v. Neal and Chicago Board of

Keller v. Macon County Greyhound Park (2011)

Credit Card Processing USA v. Merrick Bank (2011) TK Holdings v. Doe (2008) Harris v. Blockbuster (2009) Speaker v. U.S. HHS CDC(2010)

L.S. et al v. Mount Olive Board of Education (2011) Stollenwerk v. Tri-West Healthcare Alliance (2005) Ameriprise v. Financial Resources of America (2008) Townsend v. The Princeton Review (2008)

Vanbuskirk v. Citigroup (2006) Schickler v. St. Jude Medical (2006) Valdez v. Cox Communications (2011) Hendricks v. DSW (2006) Garrett v. Comcast (2004)

Walker v. S.W.I.F.T. (2007) Peitler v. T-Mobile (2009) Pennsylvania State Employees Credit Union v. Fifth Third Bank and BJ's Wholesale Club (2008) Garnett v Millennium Medical Management

Resources (2010) Owca v. Capital One Services (2010)

E-Shops v. U.S. Bank (2012) Wagoner v. AFLAC (2009)

Ewing v. Administrative Systems (2009) Epic v. US DHS (2012) Saenz v. Kaiser Permanente (2010) Garnett v. LaSalle Bank (2008)

Korman v. The Walking Company (2007) Ramirez v. MGM Mirage (2007) Griffin v. First Premier Bank (2005) Odom v. Securitas Security Services (2008) In re: Maple v. Colonial Orthopaedics (2010)

Johnson v. Carpinelli (2007) Clark Street Wine & Spirits v. Emporos Systems (2010) Gaos v. Google (2010)

Hotwire, StaTravel, Overstock.com, Zappos.com, Gamefly, (2010) Perry v. James Miller Chevrolet (2007)

Lane v. Facebook, Blockbuster, Fandango,

Home v Pfizer (2007) McInture v. lewish Hospital & St. Maru's Healthcare (2010)

Murray v. Cingular Wireless II (2005) Gentile v. Imagitas (2007) Mathias v. Imagitas (2006) Stone v. Cosi (2007)

Korman v. The Walking Company (2007) Robinson v. H&R Block and HSBC Bank (2008) Robins v. Spokeo (2011)

Losapio v. Comcast (2011) Sams v. Yahoo! (2013) Sams v. Windstream (2010)

Change v Sisters of St Francis Health Services (2006) Low v. Linkedin (2012)

Virtue v. Myspace (2011) Levine v. ChoicePoint (2003) Fresco v. Acxiom (2005) In re: Google User Privacy Litigation (2012)

Conner v. Tate (2001). Rogler v. US DHHS (2009) Lee v. US DOJ (2006)

Brittingham v. Cerasimo and Does 1-10 (2009) Aliano v. Texas Roadhouse Holdings (2008) Cicilline v. Jewel Food Stores (2007) Klimp v. Rip Curl (2008)

Torres v. Babycenter, LLC (2008) Kesler v. Ikea U.S. (2008) Hammer v. JP's Southwestern Foods (2010)

Todd v. Target (2010) Friedman-Katz v. Lindt & Sprungli (2010) Resnick v. AvMed (2011) Wiles v. Southern Bell Telephone (2011)

King v. Google (2011) Goode v. LexisNexis (2011) Godimez v. Bar Brothers (2011) McClung v. Susan Combs, Texas

Comptroller (2011) Charles v. Money International and Walmart (2011) Olivera v. Vizzusi (2011)

Richardson v DSW (2005) Murray v. AT&T (2005) Beaven v. US DOJ (2007)

Josello v. Leiblys (2007) Follman v. Hospitality Plus (2007) Follman v. Village Squire (2007) Kairoff v. Dropbox (2011)

Credit Chequers v. CBA, Experian, and Equifax (2013) Robinson v. Equifax (2009)

Hinton v. Trans Union (2009) Thomas v. Hugo's Frog Bar (2008) Kramer v. Orland Park Nissan (2005)

Marinucci v. Fidelity (2010) Bruce v. Keybank National Association (2007) Thompson v. Department of State (2005)

Edmonds v. US DOJ (2006) Armstrong v. Paulson (2007) Murray v. GAMAC Mortgage (2005) Tillman v. Bank of America (2011)

Muga v. Branch Banking & Trust (2010) Mannacio v. General Electric (2007) Schoenberg v. Guidance Software (2006) Human Rights Law Foundation v. Cisco (2011)

Frey v. Brinker Texas, d/b/a Chili's Bar & Grill (2011) Wong v. Dropbox (2011) Levine v. Reed Elsevier (2003)

Reves v. Marku Enterprises (2011) Saurage v. Rave Reviews Cinemas (2007) Baum v. Keystone Mercy Health Plan (2011)

Key v. DSW (2006) Mercado v. Wachovia (2005) Mingo v. Wachovia (2005) Giordano v. Wachovia (2006)

Edify v. Fifth Third Bank (2007) International Union of Operating Engineers v.

Ward (2009) Ramkissoon v AOI (2009) Payne v. Verizon (2006) Federle v. Cissel (2006) Estep v. Blackwell (2008) Santellana v. Nucentrix (2002) Chaney v. Wachovia (2005)

#### In the News

- Maricopa College waited 7 months to notify 2.4 million students of data breach
- Maricopa County College's computer hack cost tops \$26M



**DISTRICTS MUTUAL INSURANCE** & RISK MANAGEMENT SERVICES

#### Very Common Technical Weakspots (not going away)

#### PROBLEM 1) IDS or 'Intrusion Detection Software' (Bad guy alert system)

- Studies show that 70% of actual breach events are NOT detected by the victim-company, but by 3<sup>rd</sup> parties (and many more go undetected completely).
- FTC and plaintiff lawyers will cite 'failure to detect'



 Vary rarely used P2P or across a full enterprise (email, web app databases, laptops, clouds etc)



#### PROBLEM 3) Patch Management- Challenges:

- All systems need constant care (patching) to keep bad guys out.
- Verizon DBIR 2016: over 85% breaches caused by old/known exploits (Top 10 CVEs. Over 1 yr to 7 yrs old)!

#### PROBLEM 4) Vendor Mis-Management

- Vendors more often now in care, custody & control of YOUR systems or data
- Often no oversight; little due diligence
- SLAs often disown security assurances (no defense or indemnity contractual provisions; waive right to subrogation)
- 1 on 3 events caused by 3<sup>rd</sup> party vendor



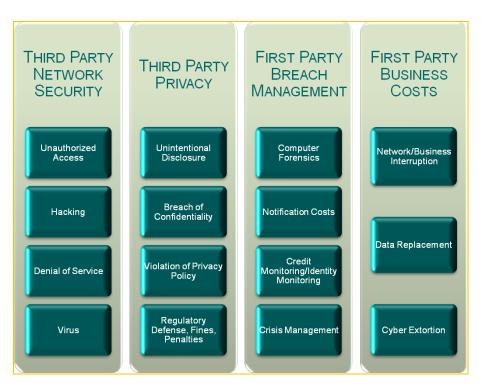
DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

| Collaborators in Risk Management |

**April 2017 - Risk Mitigation Seminar** 

## What are some exposures?







DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

HIGHLIGHTS OF FINDINGS —————

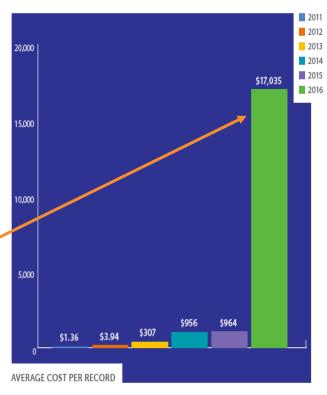
Sample Size = 176 claims

Detailed partner report now inside your eRiskHub®

- Per Breach Costs
  - Average breach cost: \$665K
  - Comment: more representative of 'main street' than Wall St,
     Small biz = 87% of claims.
  - Large Co: \$6M (up from last year)
- Per Record Costs
  - Average per-record costs: \$17K\* (median = \$40)

\*Spiked avg due to 3 big 'outlier' claims; one was over a \$1M per record!

• **Cost Range:** \$0.03-\$1.6M (pennies to million)





DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

— HIGHLIGHTS OF FINDINGS ————

Crisis Service Costs

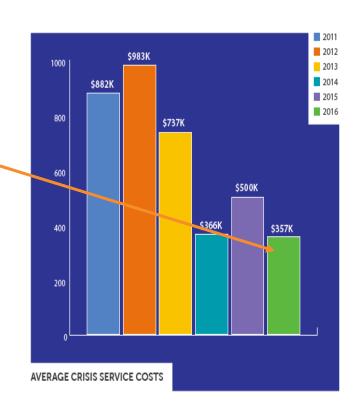
(forensics, legal counsel, notification & credit monitoring)

- Average cost: \$357K (Median: \$43K)
- Breach Coach® lawyers helping control crisis costs
- Legal Costs

(defense & settlement)

Average cost of defense: \$130K (Median: \$16K)

Average cost of settlement: \$815K (Median: \$250K)





DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

------ HIGHLIGHTS OF FINDINGS -----

#### **COMPARING 2016 TO PRIOR YEARS**

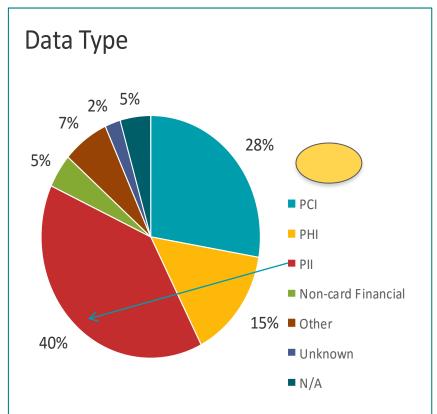
Average # of Records Exposed & Cost by Type (in millions)

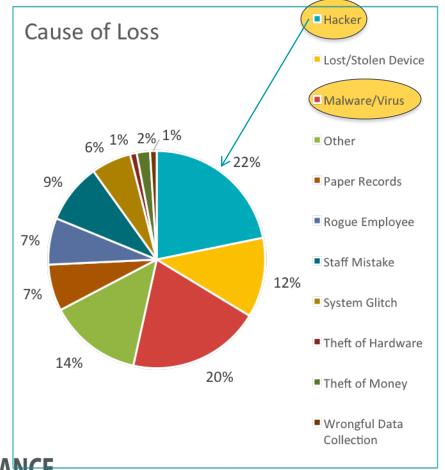




DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES



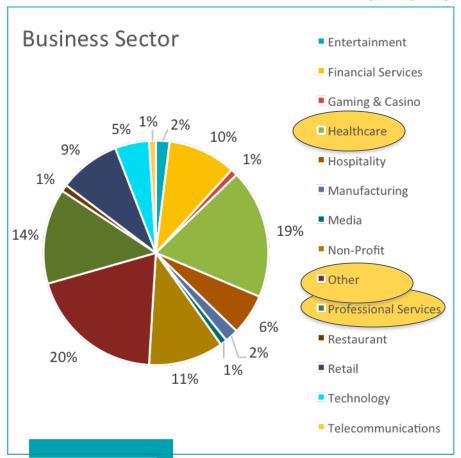


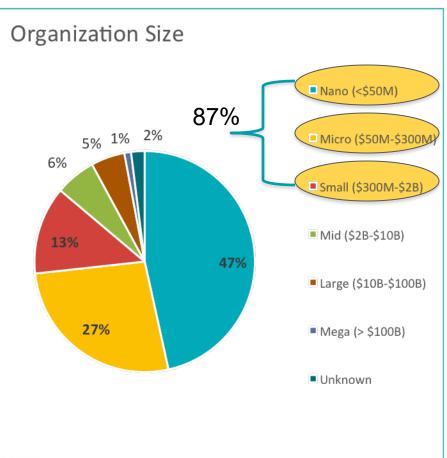




DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES







DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

## What Can You Do? ... Assess Your Readiness

Purpose: Showcase Strengths & ID Weakspots

- Build on PCI/ HIPAA etc
- Focus: Privacy & Security liabilities
- Reaffirm 'reasonable' safeguards
- Benchmark to Standards & Peers
- Show good faith efforts to compliance with Regs
- Doc your Cloud Usage
- Show lessons learned from past incidents (battle ready stance)

#### Cyber Risk Insurability Assessment

- Process should be collaborative
- Educate CEO about their own IT operations
- Wide-Angle: people, process & tech



In-transit encryption for: (Please Identify deployed solutions for each setting VPNs and/or dedicated lines to partners, customers, service providers' F-mail transmission? Wireless via WPA/WPA2 or other advanced protocols (and elimination of WEP) At-rest encryption for, (Please identify deployed solutions for each setting) Backup tapes and other archival media? Production databases and unstructured file servers? Employee laptops and other mobile computing devices? . USB Thumb Drives and other mobile storage devices? Compared with ALL clients from 2011 aspect of the infrastructure; sftp for bulk file ed encryption: and a Dell-based hardware solution ked at this year, but in the meantime reliance is

## Preparedness Tips for Tech College

- Perform a Cyber Risk Assessment
  - Include any 3<sup>rd</sup> party IT & data storage dependencies (contractors, clouds, etc)
  - Map your sensitive client data
  - Review privacy with security (e.g. wrongful data collection exposure)
- Develop and operationalize a data breach Incident Response Plan
  - Bolster your IRP ... Self-help with outside experts
  - Tiger Team experts
    - Breach Coach® (legal expert)
    - Computer Forensics (triage and establish the facts who, what, when, where & how)
    - Notification & call ctr
    - Credit & ID Monitoring
    - o PR
- Conduct training on a regular basis to all employees and vendors
- Review insurance coverage for gaps, ensure 'cyber liability' (not just E&O)



#### The DMI eRiskHub



#### Districts Mutual Insurance eRiskHub®



https://eriskhub.com/home



DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

### eRiskHub® Unique Features

Breach Coach®

NEW interactive 50 state map (updated by top breach lawyer)

**Proprietary Risk Tools:** 

Free online security assessment (produces a scorecard benchmarking report)

Free security posture research report (by SSC)

Free Security Policy library

Free access to Compliance Shield

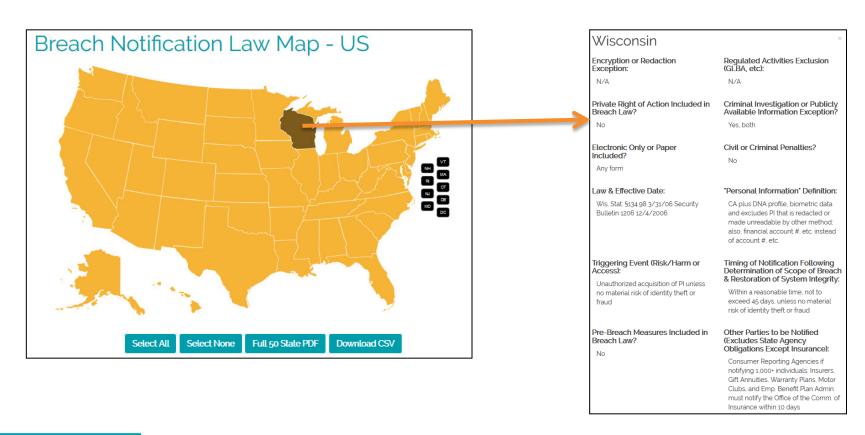
Free use of Unique Research Tools

- Cyber Claims paid & causes
- Data breach cost calculator
- o Fines & penalties research tool
- Cause of Loss



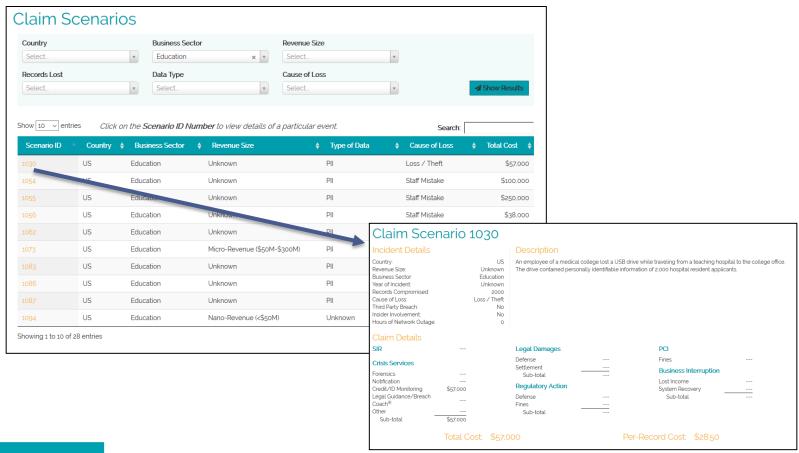
DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

#### **50 State Interactive Breach Notice Law Map**





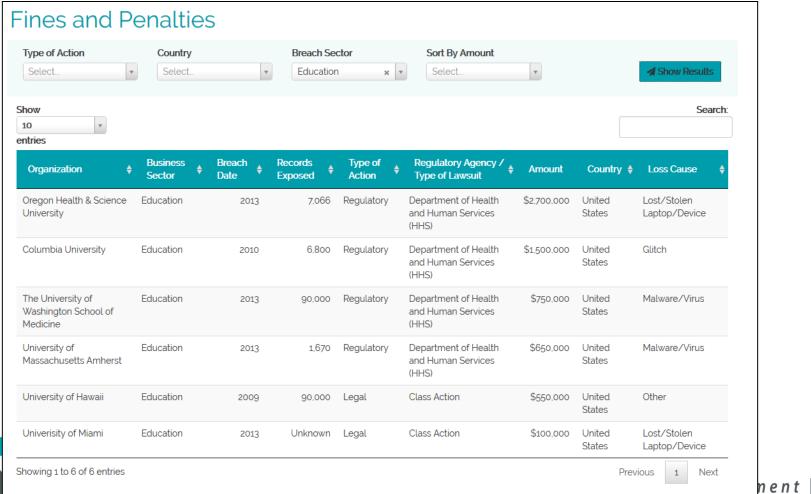
#### **Tools – Claims Scenarios**





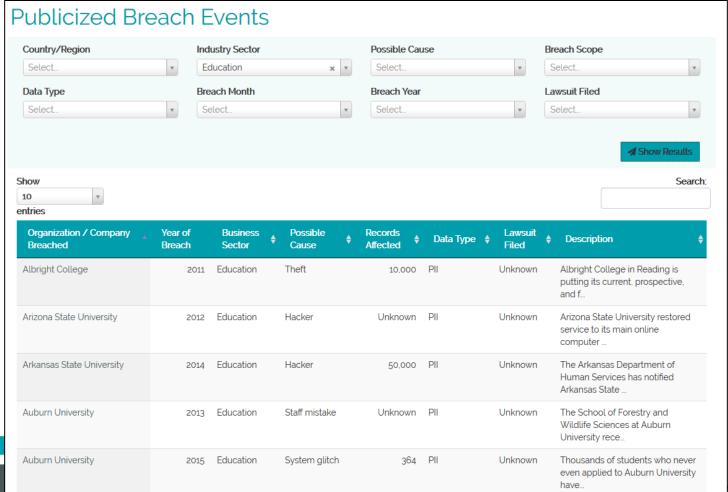
DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

#### **Tools – Fines & Penalties**



& KISK MANAGEMENT SERVICES

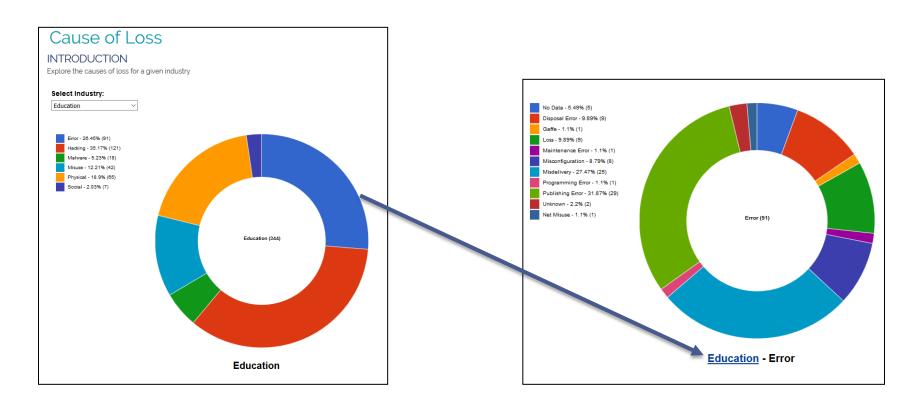
#### **Tools – Publicized Breach Events**



ement

& KISK MANAGEMENT SERVICES

#### Tools – Cause of Loss





### **Tools – Sample Security Policies (free)**

#### Sample Policies

- MDM-BYOD Auto-Wipe Waiver
- Mobile Computing Policy
- Physical Security Policy
- Posting and Removal of Online Content
- Sample Information Security Policy Template
- M Security Awareness Training and Education Policy
- Security Policy 101 Essential Policies for Business
- Sensitive Information Handling
- Social Networking Acceptable Use
- Web Site Privacy Policy



DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

### **Cyber Risk Blog - Junto**



#### JETRO V. MASTERCARD: NEW CONCERNS FOR MERCHANTS AND INSURERS



Posted by Mark Greisiger

#### A Q&A with Doug Meal

The brave new world of cyber liability got a lot more complicated last May. That's when the Jetro Holdings LLC v MasterCard Inc. case held that if a card brand withholds merchant funds to satisfy the brand's PCI fines and assessments following a data breach, the merchant has no legal recourse against the brand—even if the brand acted unlawfully in imposing the fines and assessments in the first place. I talked to attorney Doug Meal of Ropes & Gray, LLP, to explore this case and its implications for retailers and their insurers.

Can you please provide an overview of this case and explain why both clients and their cyber liability insurers should be concerned about the ruling and overall outcome?

Jetro is a restaurant supply merchant that suffered a data security breach back in 2011 and a second one in 2012. Efforts were made by the criminals to steal payment card data from Jetro during the breaches, but the criminals were never caught and there has never been confirmation that account data was actually stolen. Nonetheless, MasterCard asserted that Jetro was liable, under its rules, for \$6.5 million in fines, fees and assessments, and based on that assertion MasterCard withheld \$6.5 million of funds that Jetro was due for purchases Jetro customers had made using MasterCard-branded payment cards.

Jetro believes MasterCard acted in violation of its own rules and New York law in imposing and collecting the \$6.5 million. The wrinkle is that, because MasterCard doesn't enter into contracts directly with merchants like Jetro—but instead contracts with The trial court's
decision should be
of grave concern to
both merchants and
the cyber insurers
who insure them
against liabilities
they may incur in
the context of cyber
events. This
decision, if it stands
up on appeal,
means that a
merchant will have

#### Example topics (interviews):

- Sorting Out the Consequences of PCI Data Security Noncompliance
- Revisiting PCI
- Mobile Payments: How Much Risk Is Too Much?
- EMV and Payment Security: What's Next
- Backoff Malware: A POS Nightmare
- <u>Keeping Up With Payment Card Industry</u> Data Security Standards
- <u>Using Data Security Policy Templates to</u> Maximum Effect
- Payment Cards and Data Breaches



DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

## NetDiligence®



**BreachCoach**®



QuietAudit<sup>®</sup>

## Thank you!

Mark Greisiger NetDiligence®

Mark.Greisiger@NetDiligence.com

610.525.6383



DISTRICTS MUTUAL INSURANCE & RISK MANAGEMENT SERVICES

Collaborators in Risk Management |

**April 2017 - Risk Mitigation Seminar**