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Honorable Janet Yellen Secretary U.S. Department of the Treasury 1500 Pennsylvania Avenue NW Washington, DC 20220 February 19, 2021

Dear Secretary Yellen,

The Cyber Risk Task Force of the American Academy of Actuaries¹ would like to offer its assistance to the Department of Treasury as consideration is given to the challenges and opportunities present in the current system of regulating and overseeing responses to cyber breaches of personally identifiable information. The task force report, *Cyber Breach Reporting Requirements: An Analysis of Laws Across the United States*, published in November 2020, is based on a database of state breach reporting requirements which, for the first time, allows a systematic comparison of the various state laws. The report highlights areas where typical state laws and/or the differences among state laws may create obstacles for actuaries and insurance companies working to assess the risk resulting from cyber breaches. Those obstacles have implications for the efficient management of cyber risk and for the design of an effective regulatory system.

In July 2018, the Treasury Department published a wide-ranging report on the nonbank financial sector: A Financial System That Creates Economic Opportunities: Nonbank Financials, Fintech, and Innovation.² That report noted:

The United States does not have a national law establishing uniform national standards for notifying consumers of data breaches, or for providing them a clear and straightforward mechanism for resolving disputes. In the absence of uniform national standards, states have been aggressive in developing their own data breach notification laws.... Unsurprisingly, state data breach notification laws are far from uniform. Indeed, they vary in a number of significant ways.... (Treasury, July 2018; page 40)

While the report included some characteristic differences, Treasury does not appear to have had available a systematic database of state laws designed to enable comparison of the states' statutes.

¹ The American Academy of Actuaries is a 19,500+ member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

² US Department of the Treasury, A Financial System That Creates Economic Opportunities: Nonbank Financials, Fintech, and Innovation, July 2018.

Based on the Treasury report's analysis, it recommended that Congress create national standards for the regulation of cyber breaches. While the task force does not endorse (nor oppose) the concept of national standard-setting, we do believe that more attention needs to be paid to the variation in state requirements. That is the focus of the Academy report.

In the analysis, the task force report identifies three areas of concern which follow from state laws defining requirements for notifications following a cyber breach. First, introducing subjective determinations into the calculation of harm (or potential harm) and limiting notification to those breaches that cause harm may leave consumers without the ability to protect themselves from the consequences of a breach. Second, the typical requirement that notice be provided to consumers "as quickly as possible" or "without unnecessary delay" seems unnecessarily vague. Third, the report notes that any threshold trigger for notification of consumers that is greater than one has the potential to leave consumers vulnerable to losses due to misuse of their Personally Identifiable Information before they learn of the breach.

The report also identifies issues arising from the diversity of requirements across the states, a variability which is discussed in detail in the report. That variability likely would create compliance issues above and beyond those that would be present if there were a common set of requirements. The increased cost of compliance, if significant enough, could impact consumers either through reduced resources available to improve products or services or through higher insurance premiums than will eventually be reflected in the cost of goods and services.

Finally, for actuaries, the implications of non-uniform statutes in assessing the financial risk associated with cyber breaches follow from the difficulty of combining data across jurisdictions because the expense of addressing a data breach and the resulting costs to indemnify for that potential harm across jurisdictions is not the same. The timing of notice may have some, modest, impact on the valuation of the harm, while the trigger for notification is directly input into the costs that would be covered by the cyber insurance. The more cohesive the data is, the more likely the estimation of expected risk—and, consequently, future premiums—includes a lower risk margin to reflect reduced uncertainty.

I hope that you find the report, and the database upon which it is based, useful. If you would like additional information, the Cyber Risk Task Force and the Academy's professional staff stand ready to assist you in understanding and reconciling the significant differences from state to state in addressing the consequences of cyber data breaches.

You can contact us through the Academy's Assistant Director for Public Policy Research, Steve Jackson, at (202) 785-7884 or <u>sjackson@actuary.org</u>.

Sincerely,

Norman Niami, MAAA, FCAS Chairperson Cyber Risk Task Force

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CYBER BREACH REPORTING REQUIREMENTS AN ANALYSIS OF LAWS ACROSS THE UNITED STATES

American Academy of Actuaries Cyber Risk Task Force, Casualty Practice Council



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Cyber Breach Reporting Requirements An Analysis of Laws Across the United States

November 4, 2020

A Report by the Cyber Risk Task Force Casualty Practice Council American Academy of Actuaries

This research was conducted primarily by Academy Senior Research Analyst Chris Loza, with guidance and assistance from Academy Assistant Director for Research Steve Jackson and the members of the Cyber Risk Task Force.

Introduction

According to White House Council of Economic Advisers reporting in 2018, "malicious cyber activity cost the U.S. economy between \$57 billion and \$109 billion in 2016."¹ While cybercrimes continue to evolve and expand, the uptake of cyber insurance—offering some protection against cyber risk—also continues to grow. According to the National Association of Insurance Commissioners (NAIC), between 2015 and 2018, total premiums written for cyber coverage increased from \$1.4 billion to \$3.6 billion.² Reducing the risks and managing the risks as efficiently as possible requires that actuaries, companies, and regulators have as much relevant information available about both prior cybercrime experience and about evolving risks. Some of that information arises from compliance with laws and regulations governing the reporting of cyber breach incidents.

In the United States, laws and regulations governing cyber data breaches largely come from the state governments. While the federal government regulates the response to breaches affecting national security (including nuclear power) and health information, most commercial sector cyber breaches are regulated only at the state level. As a December 2014 Congressional Research Service (CRS) report noted:

The complex federal role in cybersecurity involves both securing federal systems and assisting in protecting nonfederal systems. Under current law, all federal agencies have cybersecurity responsibilities relating to their own systems, and many have sector-specific responsibilities for critical infrastructure (CI). More than 50 statutes address various aspects of cybersecurity either directly or indirectly, but **there is no overarching framework legislation in place**.³ [**bold** added for emphasis]

Instead of comprehensive federal legislation regulating cyber security, each state and territory⁴ of the U.S. has its own statute(s) covering the responsibilities of companies operating in that state in the event of cyber breaches of individuals' Personal Identifying Information (PII). These statutes include the delineation of covered information, notification requirements as well as potential penalties, and exposure to litigation resulting from a breach that exposes consumers' PII to outside parties. Depending on the given thresholds, there may be requirements to notify affected consumers, government agencies, and/or consumer reporting agencies. This can be the result of a breach caused by accident or malicious intent.

In 2018, the U.S. Treasury Department published a report on the status of nonbank financial institutions examining, among other things, data breach requirements. It observes that, in the

¹ "The Cost of Malicious Cyber Activity to the U.S. Economy." The Council of Economic Advisers. February 2018. ² "Report on the Cybersecurity Insurance and Identity Theft Coverage Supplement." Memorandum to Innovation and Technology (EX) Task Force, from Denise Matthews, director, data coordination and statistical analysis, Center

for Insurance Policy & Research, National Association of Insurance Commissioners, September 12, 2019.

³ "Federal Laws Relating to Cybersecurity: Overview of Major Issues, Current Laws, and Proposed Legislation," Eric A. Fischer, senior specialist in science and technology, December 12, 2014.

⁴ For the purposes of this paper, all references to states shall be inclusive of all 50 U.S. states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands.

absence of national standards governing the notification of consumers of data breaches, states have moved aggressively to develop their own laws. It concludes:

Unsurprisingly, state data breach notification laws are far from uniform. Indeed, they vary in a number of significant ways, including with respect to the most fundamental aspect, namely the scope of data covered under the definition of personal information. Other inconsistencies among states' breach notification laws can make compliance difficult for firms and entail disparate treatment for consumers. The lack of uniformity and efficiency affects both nonfinancial companies and financial institutions.⁵

This Treasury report reflects its concerns and conclusions with respect to state regulation of data security. However, the conclusions appear to be based on a nonsystematic analysis of those regulations. The purpose of this paper is to provide a systematic comparison of the existing regulations with respect to data breaches involving PII across the states. The model law developed by the NAIC with regard to data security for insurance companies and how it compares to state regulations affecting all businesses was also examined.

Online summaries of each state's cyber breach notification policy have been publicly posted by various law firms, which we found to be a useful resource for our analysis. To compile our own summary of relevant aspects of each state's laws, we first lined up the corresponding categories of each survey as follows:

⁵ U.S. Department of the Treasury, "A Financial System That Creates Economic Opportunities: Nonbank Financials, Fintech, and Innovation," July 2018

State Laws Survey 1 ⁶	State Laws Survey 2 ⁷	State Laws Survey 3 ⁸	State Laws Survey 49
Scope of this Summary	Application	Definition of "Personal Information"	Persons Covered
Covered Info	Personal Information Definition	Definition of "Personal Information"	Personal Information Definition
Form of Covered Info			
Encryption Safe Harbor		Safe Harbor for Data that is Encrypted, Unreadable, Unusable, or Redacted?	
Breach Defined	Security Breach Definition	Definition of "Breach"	Encryption/Notification Trigger
Consumer Notice	Timing of Notification	Timing of Notification to Individuals	Specific Content Requirements
	Notice Required		Timing
	Substitute Notice Available		
Delayed Notice	Exception: Compliance with Other Laws		
Harm Threshold	Notification Obligation	Analysis of Risk of Harm	
Government Notice	Attorney General/Agency Notification		
Consumer Reporting Agency Notice	Notification to Consumer Reporting Agencies		
Third-Party Notice			
Potential Penalties		Enforcement/Private Cause of Action/ Penalties	Penalty/Private Right of Action
	Other Key Provisions		Other Provisions

For our summary of the states' statutes, we followed the organizational structure listed in column 1 and defined the 12 categories for comparison as follows:

⁶ Davis, Wright, Tremaine—The latest summaries by DWT were revised in July 2019. Summaries can be found as both an <u>interactive map</u> and as a <u>series of tables</u>.

⁷ <u>Perkins Coie</u>. A <u>full PDF document</u> covering all states and territories is also provided.

⁸ <u>Foley & Lardner</u>—Summaries were last revised on Sept. 1, 2020. Foley's summaries are updated quarterly. The most recent document can be accessed <u>here</u>..

⁹ Baker & Hostetler—Summaries can be found as an <u>interactive map</u>. A link is also provided to download a complete report covering all states and territories.

Scope—Entity or entities to whom notification requirements and other aspects of the law are applicable

Covered Information—the personal identifying information (PII) that would trigger the statute if exposed to breach

Form of Covered Information—whether electronic, written, or other form is covered

Breach Definition—how a violation is defined by the statute

Safe Harbor/Exceptions—exceptions that exempt a breach from statute requirements

Harm Threshold—whether the statute sets a threshold for a reasonable expectation of harm before triggering remedies

Consumer Notice—how and when affected consumers should be notified of a breach

Government Notice—how and when a government agency, such as the office of the attorney general, should be notified of a breach

Consumer Reporting Agency (CRA) Noticeⁱ—how and when CRAs should be notified of a breach

Third-Party Notice—if responsible party is maintaining covered PII for a third party, how and when the third party should be made aware of a breach

Notification Delay—circumstances when the mandated notification to consumers may be delayed

Potential Penalties—additional civil liabilities potentially borne by responsible party, including monetary penalties and exposure to private litigation

For each of the 12 categories, we compared across the characterizations of the four summaries and settled on a comprehensive narrative. Two of the summaries have the categories *Other Key Provisions* and *Other Provisions*. These categories may fall into any number of our selected categories. These fields are reviewed for any possible contradictions or significant additions that were not already captured or the requirement to add another field. We found no such cases. We then turned to that state's relevant statute to be sure it agreed with each of the final summary narratives.¹⁰

¹⁰ The information and analysis presented in this paper is solely for informational purposes and is not intended to provide legal guidance. Each of the four law firms upon whose publicly available information we have relied present similar disclaimers. (See Appendix C.) Each jurisdiction's relevant statute is also given, along with a link, in Appendix A.

We then created 12 tables to analyze the narrative for each category for each jurisdiction and developed quantifiable categories across each. Those quantifiable categories and our results can be found in Appendices C-1 through C-7 and are summarized in the following section.

Findings

All of the state statutes that we have studied share several attributes that are substantively similar. The timing and methodology for notifying affected customers differ only nominally. The statutes diverge more significantly related to enforcement and penalties; e.g., when and how state law enforcement gets involved and the potential exposure to economic damages. There are also notable differences as to what is considered PII that, if exposed, would trigger the statute(s). Almost all jurisdictions include any one of the following in combination with the customer's name: Social Security number, some kind of government identification number, and actionable financial account information. Thirty-three of the 54 jurisdictions include more than these forms of PII.

Scope—All the jurisdictions' statutes include commercial entities that maintain and are responsible for residents' PII. While none explicitly exclude noncommercial, nongovernmental entities in the relevant business definitions, 19 states explicitly include noncommercial entities. Thirty-two states further include government agencies. All jurisdictions explicitly cover PII of that specific jurisdiction's residents only. In 26 jurisdictions, only entities conducting business in that state are subject to the statute's requirements.

Covered Information—Exposure of certain PII triggers statutory requirements for each state. Covered PII includes at least first initial or name and last name in tandem with at least one of the following: Social Security number (54 states), driver's license number (53), financial account numbers combined with any code necessary to access account (52), and any other unique identifier information provided by the state or other government body (46).

Other forms of PII covered by certain states—when revealed with name— (and number of states including) are:

FORMS of PII COVERED (beyond	Number
SSN, driver's license, financial	of States
account information, or government-	
issued ID)	
Medical Information	18
Username/Email-Passcode Access	18
Health Insurance Unique ID	16
Unique Biometric Data	16
Passport	10
Special Government-Issued ID	10
Tax ID	7
Military ID	5
Federal ID	4
Electronic Signature	4
IRS PIN	2
Student Number	2
Tribal ID	2
Date of Birth	2
Employer-Assigned ID and Passcode	2
Work Evaluations	2
License Plate Recognition Information	1
Mother's Maiden Name	1
Tax Information	1
Birth Certificate	1
Marriage Certificate	1

The most common state triggers consist of at least one of four basic types (Social Security number, driver's license, financial accounts, and state ID); there are 21 states in which only those four trigger the notice requirements. Two more jurisdictions (Kentucky and the Virgin Islands) only include three types as triggers, excluding state ID from the basic four. These 23 states require notice for breaches of the fewest of the 25 types identified in all of the states.

Wyoming has more triggers than any other state, a total of 15, closely followed by Washington, with 13. Nine more states name between nine and 11 triggers. The distribution of states and the number of the 25 possible triggers which they name is as follows:

Number of States	Number of Triggers
1	15
1	13
4	11
2	10
3	9
2	8
3	7
9	6
6	5
21	4
2	3

Form of Covered Information—Each of the fifty-four jurisdictions' statutes cover electronic records. Six states explicitly include paper records, and two others include any medium transferred from the computerized records.

Breach Definition—In all jurisdictions except one, a breach is explicitly described as an "unauthorized" access or acquisition of unencrypted covered PII. Iowa describes such acquisition as "illegal." All but three jurisdictions (Connecticut, Mississippi, and Puerto Rico) have an exception for a good-faith acquisition by an entity's employee or agent so long as the acquisition is for the entity's purpose and does not result in an unauthorized disclosure.

Safe Harbor/Exceptions—In every jurisdiction, statutes do not apply if accessed data is encrypted (and the encryption key was not uncovered) or otherwise rendered unusable through redaction or other means.

Harm Threshold—Eight states do not require notification if the entity establishes that misuse of the covered PII is not reasonably likely. Thirteen states require notification if there is a reasonable likelihood of harm. Two states set the threshold at a reasonable chance to cause substantial harm while two others set the bar at loss or injury. North Carolina requires notification only if illegal use of the PII is reasonably likely. Fourteen jurisdictions do not require notification unless there is a reasonable expectation that the covered information can be used to cause identity theft or fraud. Fourteen states do not stipulate any harm threshold, so all breaches involving covered PII must lead to notification.

Consumer Notice—Twenty-six jurisdictions require that notification to affected consumers be made as quickly as possible. Another 13 note that notification must occur without unreasonable delay, and 15 jurisdictions set a hard limit to the reporting period, ranging from 30 to 90 days after the breach is discovered. The most common limit, which is included in the statutes of nine states, is 45 days, while one state allows 90 days, two allow 60 days, and three allow only 30 days. Three of these states (Delaware, Florida, and New Mexico) allow for exceptions in limited circumstances as noted below in Notification Delay section.

In the case of every state but one, notice can be written and delivered by regular mail or email. Wisconsin allows notice to be delivered either by regular mail or via whatever method was used to previously contact the consumer.

Twenty-seven jurisdictions also allow for notice to be given over the telephone.

When giving notice individually to each affected consumer is considered prohibitively expensive, alternate or substitute notice may be available in 50 of the 54 jurisdictions. Such substitute notification may include prominently posting notice on the business' website or a notification in statewide media. The cost threshold when this option becomes available varies by jurisdiction, from \$5,000 (Maine, Mississippi, New Hampshire, and Vermont) to \$500,000 (Alabama and Arizona). Most (26) use \$250,000 as their cost threshold before allowing alternative notice methods. States also allow a threshold denoted by a minimum number of consumers affected. This threshold ranges from 1,000 consumers (Maine and New Hampshire) to 500,000, which is also the threshold for most states (23).

Government Notice—While 18 jurisdictions do not explicitly note in their statutes a requirement to notify a government authority, 36 require that the state's attorney general or other legal authorities and/or appropriate regulator be notified. Thirty of the 36 jurisdictions require that at least the attorney general's office must be notified, with two others (New Jersey and Florida) specifying other legal authorities. Four only require notification of the relevant regulatory authority. Alaska (one of the 36) requires notification of the attorney general only if the breach does not reach the threshold of notifying residents. Of the 36 requiring government notification, 15 jurisdictions require such notification whenever residents must be notified. Four states (Rhode Island, Texas, Utah, and West Virginia) require such notification if at least 250 residents are affected. The threshold for eight states is 500 affected consumers while seven jurisdictions set the bar at 1,000 residents. One jurisdiction (Wisconsin) sets a limit of 10.

Consumer Reporting Agency (CRA) Notice¹¹Several jurisdictions require at-fault entities to notify CRAs when a given number of residents are affected. Twenty-seven states set that threshold at 1,000 affected residents. New York's bar is set at 5,000. Two states (Georgia and Texas) set this threshold to 10,000, while two other states (Minnesota and Rhode Island) set it at 500 residents. South Dakota requires CRA notification whenever residents need to be notified, while Massachusetts allows for the discretion of the director of consumer affairs. In Montana, the at-fault entity must coordinate with relevant CRA(s) if a notified individual is eligible to receive its current file from the CRA(s).

Third-Party Notice—If the responsible party is maintaining the covered PII on behalf of another, all but two states stipulate that the third party must be notified immediately or as soon as reasonably possible after discovery of the breach. Alabama and Florida call for this to be done within 10 days Maryland and New Mexico require this action within 45 days of discovery, while Georgia only allows 24 hours.

¹¹ "The term "consumer reporting agency" means any person which, for monetary fees, dues, or on a cooperative nonprofit basis, regularly engages in whole or in part in the practice of assembling or evaluating consumer credit information or other information on consumers for the purpose of furnishing consumer reports to third parties...." (15 USC § 1681a(f))

Notification Delay—Every jurisdiction allows for a delay of any mandated notification if law enforcement determines that such notification may impede any criminal investigation. Only three states allow for entities to request a delay for non-legal reasons: Delaware, Florida and New Mexico.

Potential Penalties—In all 54 jurisdictions, at-fault entities are potentially subject to additional civil penalties if found to be in violation of the relevant statute—that is, if prompt notification is not given as instructed. In 17 states, the attorney general or applicable regulator can levy maximum civil fines ranging from \$5,000 (Louisiana) to \$750,000 (Michigan) per violation, with six allowing up to \$150,000. In 12 states, consumers can bring a civil action to recover economic damages against those in violation the requisite statute. The amount of recoverable damages is generally capped at actual damages plus attorneys' fees and costs.

NAIC Model Law

In October 2017, the NAIC adopted the Insurance Data Security Model Law (#668) to address the need to establish common security standards for insurers and their regulators to minimize potential damage from data breaches. States have been encouraged to adopt the model law by both the NAIC and the U.S. Treasury Department. If enacted by a state, the model law requires insurers to adopt a framework for data security, and in the event of breakdown—i.e., a data breach—guidelines for investigation, notification, and other measures to mitigate damage. As of June 2020, 11 states have adopted the model law.¹² In those 11 states, insurance companies may find themselves dealing with competing requirements, being subject both to the laws covering all businesses and those covering insurance companies. In those states that have not adopted the model law, differences between the states' laws covering all businesses and the proposed model law might account for some resistance.

A comparison of the requirements set by the Data Security Model Law for insurance companies and the requirements set by the various states for all companies could be useful. Some differences between regulations designed only for insurers and regulations which apply to all businesses would be expected. Highlighting areas where they differ provides an opportunity to assess the impact of those differences taking into account the differences in the industries covered.

Section 4 of the model law provides for required considerations when developing and implementing an information security program, including assessment and addressing of pertinent risks. The primary objective of any such program is the protection of "Nonpublic Information," which includes confidential information belonging to the insurer that if exposed could cause material harm to the "business, operation or security" of the insurer.

Such nonpublic information to be protected includes any consumer information that may identify a particular consumer along with any of the consumer's following PII: Social Security number; driver's license number; any other identification card number; any access number, code, or password that would permit access to a financial account; or biometric records. As noted above,

¹² "The NAIC Insurance Data Security Model Law," NAIC & The Center for Insurance Policy and Research State Legislative Brief, June 2020.

each state's statute covering notification of a cyber breach covers at least the same types of PII identified in the NAIC Model Law with the exception of biometric records (16 states do include such records). Twenty-three states include only that which the model law includes, with the exception of biometric data.

Section 5 of the model law provides for the necessary steps in the investigation and assessment of a cybersecurity event, as defined in the definition section as the "unauthorized access to, disruption or misuse of" data on an information system.

Section 6 contains the required notification steps necessary if the cybersecurity event involves the exposure of nonpublic information. If the exposure includes the nonpublic information of at least 250 consumers residing in the state, the state's insurance commissioner must be notified within 72 hours if the breach has a "reasonable likelihood of materially harming" any consumer or the operations of the insurer. Regardless, notification of the state commissioner is also required if the state's data security statutes applying to all companies require notification to any government and/or regulatory body. Thirty-four states already require notification of such an entity when at least 250 consumers are affected, and the breach reached this reasonableness threshold. Fifteen states have a higher threshold, while 19 have a lower bar. For the 15 states with a threshold higher than 250, the NAIC model law would create an obligation to report for insurance companies more demanding than current state law for all companies.

Implications

For pricing and designing cyber insurance products, an actuary is generally interested in knowing the relevant regulatory framework. Such knowledge informs a better understanding of the certainty, completeness, and accuracy of the data breach information the actuary uses as a basis, including the projection of future expected losses; i.e., whether mitigation exists such that there is the expectation that current experience overstates or understates expected future experience. For regulators seeking to understand likely losses by insurance companies and their customers in the event of a breach it is important that data breach notification requirements reduce to the extent possible the likelihood of future breaches (by providing information which allows companies to recognize needed security measures, for example), and mitigate the losses due to breaches. This raises three questions: 1) whether the "typical"¹³ state regulation appears likely to effectively reduce the likelihood of future breaches and mitigate losses from breaches; 2) whether the variability in state regulations appears likely to create undue administrative issues for insurers that have policyholders in more than one state; and 3) whether the typical state regulation and the variability among state regulations provides the level of information that would allow actuaries to understand well the projection of future losses.

The findings presented indicate that a typical state regulation covers those commercial entities that do business in the particular state. Triggers for notification—to government and to consumers—are limited to the name of a consumer combined with at least one of four elements: Social Security number, driver's license number, financial account information, and state-issued

¹³ By "typical" we refer to the limits and requirements that are included in statutes by more states than any others.

identification number. The typical law covers electronic records and defines a breach as an "unauthorized" access or acquisition of unencrypted covered personally identifiable information. The typical statute creates a "safe harbor" for encrypted information (meaning that breaches of that data are not covered) and define harm as likely to cause identity theft or fraud. If a breach with harm occurs, each affected consumer must be notified. Under the typical statute, consumers must be notified of breaches "as quickly as possible." State government authorities must be notified anytime notice must be provided to consumers, and credit reporting agencies must be notified if 1,000 or more consumers are notified. If the breach includes data held on behalf of a third party, that party must be notified immediately. All notifications may be delayed if law enforcement believes that delay would benefit a criminal investigation. Finally, under the typical law, civil penalties may be imposed on any company found to be in violation of the data breach statute.

Three issues arise from the typical state regulation. First, introducing subjective determinations into the calculation of harm (or potential harm) and limiting notification to those breaches that cause harm may leave consumers without the ability to protect themselves from the consequences of a breach.

Second, the typical requirement that notice be provided to consumers "as quickly as possible" or "without unnecessary delay" seems unnecessarily vague. It allows for discretion in the definition of how quickly this must happen, with negative consequences possible for consumers affected by fraud before they are ever notified. A fixed limit on the timing, as implemented in 15 states, limits this discretion. Combined with the right of a company to justify a delay to state regulators, a fixed limit (and even the most typical limit of 45 days seems a long time when fraud might arise relatively quickly after a breach) would extend greater protection to consumers.

Third, we note that any threshold trigger for notification of consumers that is greater than one has the potential to leave consumers vulnerable to losses due to misuse of their Personally Identifiable Information before they learn of the breach. In effect, subjectivity in the definition of harm might be viewed as allowing an indeterminate higher threshold for notifying consumers. But triggers requiring notifications to government authorities or credit reporting agencies might reasonably have triggers greater than one in order to limit unwarranted costs. Government authorities would be best served by knowing about breaches affecting some larger numbers because if individual consumers are provided notice of all breaches of their information, and if that notice includes a recommendation that the consumer notify credit reporting agencies, then it might be that government authorities and/or CRAs do not need to be informed of every single breach. The question of how large a breach must be in order to be useful to government and/or CRAs is not easily established, although the common trigger at 1,000 consumers may be considered by some to be high.

Beyond the issues raised by the typical statute, the variability in requirements likely would create compliance issues above and beyond those required if there were a common set of requirements for insurers. Having to maintain multiple compliance protocols, whether at the company or legal entity level, requires more effort to establish and monitor than does a single standard. This cost of compliance, if significant enough, could impact consumers either through reduced resources available to improve products or services or through higher insurance premiums than would

otherwise be required. Cyber insurance can cover indemnification of the commercial or noncommercial entity for the costs of the breach (i.e., the costs of notification, the costs of providing credit monitoring, services for those whose identity may be impaired, the cost of litigation against the entity related to harm due to the breach occurring—this could be a class action or a regulatory action).

The implications of non-uniform statutes for cyber insurance follow from the difficulty of combining data across jurisdictions because the harm caused and the resulting costs to indemnify for that harm across jurisdictions is not the same. The timing of notice may have some, but modest, impact on the valuation of the harm, while the trigger for notification is directly input into the costs that would be covered by the cyber insurance. The more cohesive the data is, the more likely the estimation of future premiums includes a lower risk margin to compensate for uncertainty.

Appendix A

Jurisdiction Statutes

State/Jurisdiction	Statute	HTML Link
Alabama	AL Code §§ 8-38-1 to 8-38-12 (2019)	https://law.justia.com/codes/alabama/2019/title-8/chapter-38/
Alaska	AK Stat §§ 45.48.010 to 45.48.090 (2019)	https://law.justia.com/codes/alaska/2019/title-45/chapter-48/article-1/
Arizona	AZ Rev Stat §§ 18-551 to 18-552 (2019)	https://law.justia.com/codes/arizona/2019/title-18/
Arkansas	AR Code §§ 4-110-101 to 4-110-108 (2018)	https://law.justia.com/codes/arkansas/2018/title-4/subtitle-7/chapter-110/
California	CA Civ Code § 1798.82 (2019)	https://law.justia.com/codes/california/2019/code-civ/division-3/part-4/title-1-81/section-1798-82/
Colorado	CO Rev Stat § 6-1-716 (2018)	https://law.justia.com/codes/colorado/2018/title-6/fair-trade-and-restraint-of-trade/article-1/part-7/setting-1/part-7/se
Connecticut	CT Gen Stat § 36a-701b (2019)	https://law.justia.com/codes/connecticut/2019/title-36a/chapter-669/section-36a-701b/
Delaware	6 DE Code §§ 12B-100 to 12B-104 (2019)	https://law.justia.com/codes/delaware/2019/title-6/chapter-12b/
District Of Columbia	DC Code §§ 28-3851 to 28-3853 (2019)	https://law.justia.com/codes/district-of-columbia/2019/title-28/chapter-38/subchapter-ii/
Florida	FL Stat § 501.171 (2019)	https://law.justia.com/codes/florida/2019/title-xxxiii/chapter-501/part-i/section-501-171/
Georgia	GA Code §§ 10-1-910 to 10-1-912 (2018)	https://law.justia.com/codes/georgia/2018/title-10/chapter-1/article-34/
Guam	9 Guam Code §§ 48.10 - 48.80 (2019)	https://law.justia.com/codes/guam/2019/title-9/chapter-48/
Hawaii	HI Rev Stat §§ 487N-1 to 487N-4	https://law.justia.com/codes/hawaii/2019/title-26/chapter-487n/
Idaho	ID Code §§ 28-51-104 to 28-51-107	https://law.justia.com/codes/idaho/2019/title-28/chapter-51/
Illinois	815 IL Comp Stat §§ 530/1 to 530/50	https://law.justia.com/codes/illinois/2019/chapter-815/act-815-ilcs-530/
Indiana	IN Code §§ 24-4.9-1 to 24-4.9-5	https://law.justia.com/codes/indiana/2019/title-24/article-4-9/
Iowa	IA Code § 715C.1 to 715.2 (2019)	https://law.justia.com/codes/iowa/2019/title-xvi/chapter-715c/
Kansas	KS Stat §§ 50-7a01 to 50-7a04 (2018)	https://law.justia.com/codes/kansas/2018/chapter-50/article-7a/
Kentucky	KY Rev Stat § 365.732 (2019)	https://law.justia.com/codes/kentucky/2019/chapter-365/section-365-732/
Louisiana	LA Rev Stat §§ 51:3071 to 51:3077 (2018)	https://law.justia.com/codes/louisiana/2018/code-revisedstatutes/title-51/
Maine	10 ME Rev Stat §§ 1346 to 1349 (2019)	https://law.justia.com/codes/maine/2019/title-10/part-3/chapter-210-b/
Maryland	MD Comm L Code §§ 14-3501 to 14-3508 (2019)	https://law.justia.com/codes/maryland/2019/commercial-law/title-14/subtitle-35/
Massachusetts	MA Gen L ch 93h §§ 1 to 6 (2019)	https://law.justia.com/codes/massachusetts/2019/part-i/title-xv/chapter-93h/
Michigan	MI Comp L §§ 445.61, 445.63 and 445.72	https://law.justia.com/codes/michigan/2019/chapter-445/statute-act-452-of-2004/
Minnesota	MN Stat §§ 325E.61 and 325E.64 (2019)	https://law.justia.com/codes/minnesota/2019/chapters-324-341/chapter-325e/
Mississippi	MS Code § 75-24-29 (2019)	https://law.justia.com/codes/mississippi/2019/title-75/chapter-24/general-provisions/section-75-24-2
Missouri	MO Rev Stat § 407.1500 (2019)	https://law.justia.com/codes/missouri/2019/title-xxvi/chapter-407/section-407-1500/
Montana	MT Code §§ 30-14-1701 to 30-14-1705 (2019)	https://law.justia.com/codes/montana/2019/title-30/chapter-14/part-17/
Nebraska	NE Code §§ 87-801 to 87-806 (2019)	https://law.justia.com/codes/nebraska/2019/chapter-87/
Nevada	NV Rev Stat §§ 603A.010 to 603.100, 603A.220 to	https://law.justia.com/codes/nevada/2019/chapter-603a/

Appendix A

State/Jurisdiction	Statute	HTML Link (a)
New Hampshire	NH Rev Stat §§ 359-C:19 to 359-C:21 (2019)	https://law.justia.com/codes/new-hampshire/2019/title-xxxi/chapter-359-c/
New Jersey	NJ Stat §§ 56:8-161 to 56:8-166 (2019)	https://law.justia.com/codes/new-jersey/2019/title-56/
New Mexico	NM Stat §§ 57-12C-1 to 57-12C-12 (2019)	https://law.justia.com/codes/new-mexico/2019/chapter-57/article-12c/
New York	NY Gen Bus L § 899-AA (2019)	https://law.justia.com/codes/new-york/2019/gbs/article-39-f/899-aa/
North Carolina	NC Gen Stat §§ 75-61 and 75-65 (2019)	https://law.justia.com/codes/north-carolina/2019/chapter-75/article-2a/
North Dakota	ND Cent Code §§ 51-30-01 to 51-30-07 (2019)	https://law.justia.com/codes/north-dakota/2019/title-51/chapter-51-30/
Ohio	Ohio Rev Code §§ 1349.19, 1349.191 and 1349.192	https://law.justia.com/codes/ohio/2019/title-13/chapter-1349/
Oklahoma	24 OK Stat §§ 24-161 to 24-166 (2019)	https://law.justia.com/codes/oklahoma/2019/title-24/
Oregon	OR Rev Stat §§ 646A.600 to 646A.604 and 646A.62	2 https://law.justia.com/codes/oregon/2019/volume-16/chapter-646a/
Pennsylvania	73 P.S. §§ 2301 to 2329	https://codes.findlaw.com/pa/title-73-ps-trade-and-commerce/ - !tid=N9B3F41908C4F11DA86FC8
Puerto Rico	PR Laws tit. 10, §§ 4051 to 4055 (2018)	https://law.justia.com/codes/puerto-rico/2018/titulo-10/subtitulo-3/capitulo-310/
Rhode Island	RI Gen L §§ 11-49.3-1 to 11-49.3-6 (2019)	https://law.justia.com/codes/rhode-island/2019/title-11/chapter-11-49-3/
South Carolina	SC Code § 39-1-90 (2019)	https://law.justia.com/codes/south-carolina/2019/title-39/chapter-1/section-39-1-90/
South Dakota	SD Codified L §§ 22-40-19 to 22-40-26 (2019)	https://law.justia.com/codes/south-dakota/2019/title-22/chapter-40/
Tennessee	TN Code § 47-18-2107 (2019)	https://law.justia.com/codes/tennessee/2019/title-47/chapter-18/part-21/section-47-18-2107/
Texas	TX Bus & Com Code §§ 521.002, 521.053 and 521.	https://law.justia.com/codes/texas/2019/business-and-commerce-code/title-11/subtitle-b/chapter-521/subtitle-b/subtitle-
U.S. Virgin Islands	V.I. Code tit. 14, § 2208 (2019)	https://law.justia.com/codes/virgin-islands/2019/title-14/chapter-110/subchapter-i/2208/
Utah	UT Code §§ 13-44-101 to 13-44-301 (2019)	https://law.justia.com/codes/utah/2019/title-13/chapter-44/
Vermont	9 V.S.A. §§ 2430 to 2435 (2019)	https://law.justia.com/codes/vermont/2019/title-9/chapter-62/
Virginia	VA Code § 18.2-186.6 (2019)	https://law.justia.com/codes/virginia/2019/title-18-2/chapter-6/section-18-2-186-6/
Washington	WA Rev Code §§ 19.255.010 to 19.255.020 (2018)	https://law.justia.com/codes/washington/2018/title-19/chapter-19.255/
West Virginia	WV Code §§ 46A-2A-101 to 46-2A-105 (2019)	https://law.justia.com/codes/west-virginia/2019/chapter-46a/article-2a/
Wisconsin	WI Stat § 134.98 (2019)	https://law.justia.com/codes/wisconsin/2019/chapter-134/section-134-98/
Wyoming	WY Stat §§ 40-12-501 to 40-12-502 (2019)	https://law.justia.com/codes/wyoming/2019/title-40/chapter-12/article-5/

(a) Justia provides free and open access to state laws on its website (https://company.justia.com/). The National Conference of State Legislatures also provides links to the statutes through the respective state websites at: https://www.ncsl.org/research/telecommunications-and-information-technology/security-breach-notification-laws.aspx.

Scope - Entities Covered by Statute

State/Jurisdiction	Individual	Business	Commercial	Non-commercial	Government	Residents Affected	In-State Business
Alabama	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Alaska	\checkmark				\checkmark	\checkmark	
Arizona	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Arkansas	\checkmark	\checkmark			\checkmark	\checkmark	
California	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark
Colorado				\checkmark		\checkmark	
Connecticut	\checkmark	\checkmark				\checkmark	\checkmark
Delaware	\checkmark			\checkmark	\checkmark	\checkmark	
District of Columbia	\checkmark	\checkmark				\checkmark	\checkmark
Florida	\checkmark		\checkmark			\checkmark	
Georgia	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Guam	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Hawaii		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Idaho	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark
Illinois	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Indiana	\checkmark	\checkmark					
Iowa	\checkmark	\checkmark			\checkmark	\checkmark	
Kansas	\checkmark	\checkmark				\checkmark	\checkmark
Kentucky	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark
Louisiana	\checkmark	\checkmark				\checkmark	\checkmark
Maine	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	
Maryland	\checkmark	\checkmark		\checkmark		\checkmark	
Massachusetts	\checkmark	\checkmark			\checkmark	\checkmark	
Michigan	\checkmark	\checkmark				\checkmark	
Minnesota	\checkmark	\checkmark				\checkmark	\checkmark
Mississippi	\checkmark					\checkmark	\checkmark
Missouri				\checkmark			\checkmark
Montana				\checkmark			\checkmark
Nebraska				\checkmark	\checkmark		\checkmark
Nevada	\checkmark			\checkmark	\checkmark	\checkmark	

State/Jurisdiction	Individual	Business	Commercial	Non-commercial	Government	Residents Affected	In-State Business
New Hampshire	\checkmark	\checkmark					
New Jersey	\checkmark		\checkmark				
New Mexico	\checkmark	\checkmark					
New York	\checkmark						\checkmark
North Carolina	\checkmark	\checkmark	\checkmark				
North Dakota	\checkmark						\checkmark
Ohio	\checkmark	\checkmark				\checkmark	\checkmark
Oklahoma	\checkmark		\checkmark	\checkmark			
Oregon	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Pennsylvania	\checkmark						\checkmark
Puerto Rico	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark
Rhode Island	\checkmark		\checkmark				
South Carolina	\checkmark	\checkmark				\checkmark	\checkmark
South Dakota	\checkmark		\checkmark				\checkmark
Tennessee	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark
Texas	\checkmark						
U.S. Virgin Islands	\checkmark	\checkmark				\checkmark	
Utah	\checkmark						
Vermont	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Virginia	\checkmark		\checkmark	\checkmark			
Washington	\checkmark	\checkmark			\checkmark	\checkmark	\checkmark
West Virginia	\checkmark	\checkmark	\checkmark	\checkmark			
Wisconsin	\checkmark	\checkmark				\checkmark	\checkmark
Wyoming	\checkmark		\checkmark				\checkmark
Total	53	54	27	19	32	51	26

Scope - Entities Covered by Statute

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Covered Information

State	ſ	fax ID		State ID	N	Ailitar ID	у	Financi Accour)-Hea Isuran		IRS PIN		Licens late Ii		Federa ID		Date o Birth		mploy ID/PW		Work Eval's		Birt Certifi	
	SSN		river' licens		asspo		Gov' ssued		Medica Info		UserNı Email		Uniqu Biometr		Stude Numb		Tribal ID		Aother Md. Nn		Elec. ignatu	re	Tax Info		Marriage License
AL			\checkmark	\checkmark																					
AK				\checkmark																					
AZ			\checkmark	\checkmark																					
AR				\checkmark																					
CA				\checkmark																					
CO				\checkmark																					
СТ				\checkmark																					
DE				\checkmark																					
DC				\checkmark																					
FL				\checkmark																					
GA				\checkmark																					
GU				\checkmark																					
HI				\checkmark																					
ID				\checkmark																					
IL				\checkmark																					
IN				\checkmark																					
IA				\checkmark																					
KS				\checkmark																					
KY																									
LA				\checkmark				\checkmark																	
ME			✓	\checkmark				\checkmark																	
MD				\checkmark																					
MA				\checkmark																					
MI				\checkmark																					
MN			\checkmark	\checkmark																					
MS				\checkmark																					
MO			\checkmark																						

Covered Information

State	Т	ax ID		State ID	Γ	Milita ID	-	Finan Accou		D-Hea Isurai		IRS PIN		Licens late II		Feder ID		Date o Birth		mploy ID/PW		Work Eval's		Bir Certif	
	SSN		river' icense		Passpo		Gov't Issued		Medica Info		UserNı Email/		Uniqu Biomet		Stude Numb		Tribal ID		Aother Md. Ni		Elec. ignatu	re	Tax Info		Marriage License
MT				\checkmark								\checkmark													
NE				\checkmark																					
NV				\checkmark																					
NH				\checkmark																					
NJ				\checkmark																					
NM																									
NY				✓																					
NC				\checkmark				✓																	
ND				✓																					
OH				✓																					
ОК				\checkmark																					
OR				\checkmark																					
PA				\checkmark																					
PR																									
RI				✓																					
SC				\checkmark																					
SD																									
TN																									
ТХ																									
VI																									
UT																									
VT																									
VA																									
WA																									
WV																									
WI																									
WY	\checkmark		\checkmark	\checkmark				\checkmark	\checkmark	\checkmark			\checkmark			✓	\checkmark				\checkmark	\checkmark		✓	

Covered Information

State		Tax I	D	State ID	;	Milita ID	· .	'inanci Accoun		-Healtl surance		IRS PIN	1	Licen Plate I		Feder ID	al	Date of Birth		iploye D/PW	-	Work Eval's		Birt Certifi	
	SSN	I	Driver Licens		Passpo		Gov't- Issued I		Medica Info		erNm mail/P		Uniqu Biomet		Studer Numbe		Tribal ID		lother's 1d. Nm		Elec. gnatu	re	Tax Info		Marriage License
Total	54	7	53	47	10	5	10	54	18	16	18	2	16	1	2	4	2	2	1	2	4	2	1	1	1

	Form	of Covered Inform	mation		Breach Definition	
State/ Jurisdiction	Electronic	Paper	Any Medium Xferred To	Unauthorized Access/Acquisition	Illegal Access/Acquisition	Good Faith Exclusion
Alabama	\checkmark			\checkmark		\checkmark
Alaska	\checkmark	\checkmark		\checkmark		\checkmark
Arizona	\checkmark					
Arkansas	\checkmark					
California	\checkmark			\checkmark		\checkmark
Colorado	\checkmark			\checkmark		
Connecticut	\checkmark			\checkmark		
Delaware	\checkmark			\checkmark		
District of Columbia	\checkmark			\checkmark		\checkmark
Florida	\checkmark			\checkmark		
Georgia	\checkmark			\checkmark		\checkmark
Guam	\checkmark			\checkmark		
Hawaii	\checkmark	\checkmark		\checkmark		\checkmark
Idaho	\checkmark			\checkmark		
Illinois	\checkmark			\checkmark		\checkmark
Indiana	\checkmark		\checkmark	\checkmark		
Iowa	\checkmark		\checkmark		\checkmark	\checkmark
Kansas	\checkmark			\checkmark		
Kentucky	\checkmark			\checkmark		\checkmark
Louisiana	\checkmark			\checkmark		\checkmark
Maine	\checkmark			\checkmark		\checkmark
Maryland				\checkmark		
Massachusetts	\checkmark			\checkmark		
Michigan				\checkmark		
Minnesota				\checkmark		
Mississippi				\checkmark		
Missouri				\checkmark		
Montana				\checkmark		

Form of Covered Information Breach Definition

	Form	of Covered Inform	nation	Breach Definition					
State/ Jurisdiction	Electronic	Paper	Any Medium Xferred To	Unauthorized Access/Acquisition	Illegal Access/Acquisition	Good Faith Exclusion			
Nebraska	\checkmark			\checkmark		\checkmark			
Nevada	\checkmark			\checkmark		\checkmark			
New Hampshire	\checkmark			\checkmark		\checkmark			
New Jersey				\checkmark		\checkmark			
New Mexico	\checkmark			\checkmark		\checkmark			
New York	\checkmark			\checkmark					
North Carolina	\checkmark	\checkmark		\checkmark		\checkmark			
North Dakota				\checkmark		\checkmark			
Ohio	\checkmark			\checkmark		\checkmark			
Oklahoma				\checkmark		\checkmark			
Oregon	\checkmark			\checkmark		\checkmark			
Pennsylvania				\checkmark		\checkmark			
Puerto Rico	\checkmark			\checkmark					
Rhode Island		\checkmark		\checkmark		\checkmark			
South Carolina	\checkmark			\checkmark		\checkmark			
South Dakota				\checkmark		\checkmark			
Tennessee	\checkmark			\checkmark		\checkmark			
Texas				\checkmark		\checkmark			
U.S. Virgin Islands	\checkmark			\checkmark		\checkmark			
Utah				\checkmark		\checkmark			
Vermont	\checkmark			\checkmark		\checkmark			
Virginia				\checkmark		\checkmark			
Washington	\checkmark			\checkmark		\checkmark			
West Virginia				\checkmark		\checkmark			
Wisconsin	\checkmark	\checkmark		\checkmark		\checkmark			
Wyoming				\checkmark		\checkmark			
Total	54	6	2	53	1	51			

Form of Covered Information Breach Definition

Safe Harbor, Harm Threshold and Delay Conditions

			Harm	Threshold (Reasona	able Probability	of No)		Notic	e Delay
State/ Jurisdiction	Safe Harbor Exception	Misuse	Harm	Substantial Harm	Loss or Injury	Illegal Use	ID Theft or Fraud	Legal	Other By Request
Alabama	\checkmark			\checkmark				\checkmark	
Alaska	\checkmark							\checkmark	
Arizona	\checkmark							\checkmark	
Arkansas	\checkmark							\checkmark	
California	\checkmark							\checkmark	
Colorado	\checkmark	\checkmark						\checkmark	
Connecticut	\checkmark							\checkmark	
Delaware	\checkmark							\checkmark	\checkmark
District Of Columb	ia 🔽							\checkmark	
Florida	\checkmark							\checkmark	\checkmark
Georgia	\checkmark							\checkmark	
Guam	\checkmark							\checkmark	
Hawaii	\checkmark							\checkmark	
Idaho	\checkmark							\checkmark	
Illinois	\checkmark							\checkmark	
Indiana	\checkmark							\checkmark	
Iowa	\checkmark							\checkmark	
Kansas	\checkmark	\checkmark						\checkmark	
Kentucky	\checkmark						\checkmark	\checkmark	
Louisiana	\checkmark							\checkmark	
Maine	\checkmark	\checkmark						\checkmark	
Maryland	\checkmark	\checkmark						\checkmark	
Massachusetts	\checkmark						\checkmark	\checkmark	
Michigan	\checkmark						\checkmark	\checkmark	
Minnesota	\checkmark							\checkmark	
Mississippi	\checkmark							\checkmark	
Missouri	\checkmark						\checkmark	\checkmark	
Montana	\checkmark				\checkmark			\checkmark	

Safe Harbor, Harm Threshold and Delay Conditions

			Harm	Threshold (Reasona	able Probability	of No)		Notic	Delay	
State/ Jurisdiction	Safe Harbor Exception	Misuse	Harm	Substantial Harm	Loss or Injury	Illegal Use	ID Theft or Fraud	Legal	Other By Request	
Nebraska	\checkmark							\checkmark		
Nevada	\checkmark							\checkmark		
New Hampshire	\checkmark	\checkmark						\checkmark		
New Jersey	\checkmark	\checkmark						\checkmark		
New Mexico	\checkmark						\checkmark	\checkmark	\checkmark	
New York	\checkmark							\checkmark		
North Carolina	\checkmark					\checkmark		\checkmark		
North Dakota	\checkmark							\checkmark		
Ohio	\checkmark						\checkmark	\checkmark		
Oklahoma	\checkmark						\checkmark	\checkmark		
Oregon	\checkmark		\checkmark					\checkmark		
Pennsylvania	\checkmark				\checkmark			\checkmark		
Puerto Rico	\checkmark							\checkmark		
Rhode Island	\checkmark						\checkmark	\checkmark		
South Carolina	\checkmark		\checkmark					\checkmark		
South Dakota	\checkmark		\checkmark					\checkmark		
Tennessee	\checkmark							\checkmark		
Texas	\checkmark							\checkmark		
U.S. Virgin Islands	s 🗸							\checkmark		
Utah	\checkmark							\checkmark		
Vermont	\checkmark	\checkmark						\checkmark		
Virginia	\checkmark						\checkmark	\checkmark		
Washington	\checkmark		\checkmark					\checkmark		
West Virginia	\checkmark						\checkmark	\checkmark		
Wisconsin	\checkmark						\checkmark	\checkmark		
Wyoming	\checkmark	\checkmark						\checkmark		
Total	54	8	13	2	2	1	14	54	3	

Consumer Notice

		Timing			Notice 1	Method		Substitute No	otice Threshold
State/ Jurisdiction	ASAP	Without Unreas. Delay	Number of Days	Written	Electronic	Telephone	Other	Cost	# Consumers Affected
Alabama			45	\checkmark	\checkmark			\$500,000	100,000
Alaska	\checkmark			\checkmark	\checkmark			\$150,000	300,000
Arizona			45	\checkmark	\checkmark	\checkmark		\$500,000	100,000
Arkansas	\checkmark			\checkmark	\checkmark			\$250,000	500,000
California	\checkmark			\checkmark	\checkmark			\$250,000	500,000
Colorado			30	\checkmark	\checkmark	\checkmark		\$250,000	250,000
Connecticut			90	\checkmark	\checkmark	\checkmark		\$250,000	500,000
Delaware			60	\checkmark	\checkmark	\checkmark		\$75,000	100,000
District Of Columbia	\checkmark			\checkmark	\checkmark			\$50,000	100,000
Florida			30	\checkmark	\checkmark			\$250,000	500,000
Georgia	\checkmark			\checkmark	\checkmark	\checkmark		\$50,000	100,000
Guam				\checkmark	\checkmark	\checkmark			
Hawaii		\checkmark		\checkmark	\checkmark	\checkmark		\$100,000	200,000
Idaho	\checkmark			\checkmark	\checkmark	\checkmark		\$25,000	50,000
Illinois	\checkmark			\checkmark	\checkmark			\$250,000	500,000
Indiana				\checkmark	\checkmark	\checkmark		\$250,000	500,000
Iowa	\checkmark			\checkmark	\checkmark			\$250,000	350,000
Kansas	\checkmark			\checkmark	\checkmark			\$100,000	5,000
Kentucky	\checkmark			\checkmark	\checkmark			\$250,000	500,000
Louisiana	\checkmark			\checkmark	\checkmark			\$250,000	500,000
Maine	\checkmark			\checkmark	\checkmark			\$5,000	1,000
Maryland			45		\checkmark	\checkmark		\$100,000	175,000
Massachusetts	\checkmark			\checkmark	\checkmark			\$250,000	500,000
Michigan					\checkmark	\checkmark		\$250,000	500,000
Minnesota	\checkmark			\checkmark	\checkmark			\$250,000	500,000
Mississippi		\checkmark		\checkmark	\checkmark	\checkmark		\$5,000	5,000
Missouri		\checkmark		\checkmark	\checkmark	\checkmark		\$100,000	150,000
Montana		\checkmark		\checkmark	\checkmark	\checkmark		\$250,000	500,000

Consumer Notice

		Timing			Notice 1	Method		Substitute No	otice Threshold
State/ Jurisdiction	ASAP	Without Unreas. Delay	Number of Days	Written	Electronic	Telephone	Other	Cost	# Consumers Affected
Nebraska		\checkmark		\checkmark	\checkmark	\checkmark		\$75,000	100,000
Nevada	\checkmark			\checkmark	\checkmark			\$250,000	500,000
New Hampshire	\checkmark			\checkmark	\checkmark	\checkmark		\$5,000	1,000
New Jersey	\checkmark			\checkmark	\checkmark			\$250,000	500,000
New Mexico			45	\checkmark	\checkmark			\$100,000	50,000
New York	\checkmark				\checkmark			\$250,000	500,000
North Carolina		\checkmark		\checkmark	\checkmark	\checkmark		\$250,000	500,000
North Dakota	\checkmark			\checkmark	\checkmark			\$250,000	500,000
Ohio			45	\checkmark	\checkmark	\checkmark		\$250,000	500,000
Oklahoma		\checkmark			\checkmark	\checkmark		\$50,000	10,000
Oregon	\checkmark			\checkmark	\checkmark	\checkmark		\$250,000	350,000
Pennsylvania		\checkmark			\checkmark	\checkmark		\$100,000	175,000
Puerto Rico	\checkmark			\checkmark	\checkmark			\$100,000	100,000
Rhode Island			45	\checkmark	\checkmark			\$25,000	50,000
South Carolina	\checkmark			\checkmark	\checkmark	\checkmark		\$250,000	500,000
South Dakota			60	\checkmark	\checkmark			\$250,000	500,000
Tennessee			45	\checkmark	\checkmark			\$250,000	500,000
Texas	\checkmark				\checkmark			\$250,000	500,000
Utah	\checkmark			\checkmark	\checkmark	\checkmark			
Vermont			45	\checkmark	\checkmark	\checkmark		\$5,000	5,000
U.S. Virgin Islands	\checkmark			\checkmark	\checkmark				
Virginia		\checkmark		\checkmark	\checkmark	\checkmark		\$50,000	100,000
Washington			30	\checkmark	\checkmark			\$250,000	500,000
West Virginia				\checkmark	\checkmark	\checkmark		\$50,000	100,000
Wisconsin			45	\checkmark			\checkmark		
Wyoming	\checkmark				\checkmark			\$10,000	10,000
Total	26	13		54	53	27	1		

Government, Consumer Reporting Agencies and T	Fhird Party Notification
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		Government		Consumer Reporting Agencies	Third	Partyy
State/ Jurisdiction	Consumer Threshold	Government Agency or Agencies	Consumer Threshold	Other Notes	Provision	Days to Notify
Alabama	1,000	AG	1,000			10
Alaska		AG-only if threshold not reached	1,000			
Arizona	1,000	AG	1,000		\checkmark	
Arkansas	1,000	AG, Securities Commissioner				
California	500	AG			\checkmark	
Colorado	500	AG	1,000			
Connecticut	1	AG			\checkmark	
Delaware	500	AG			\checkmark	
District Of Colum	bia		1,000		\checkmark	
Florida	500	Legal Affairs	1,000			10
Georgia			10,000			1
Guam						
Hawaii	1,000	Office of Consumer Protection	1,000			
Idaho						
Illinois	500	AG				
Indiana	1	AG	1,000			
Iowa	500	AG			\checkmark	
Kansas			1,000			
Kentucky			1,000			
Louisiana		AG - Consumer Protection Section				
Maine		Appropriate state regulator or AG	1,000			
Maryland		AG	1,000			45
Massachusetts		AG and Office of Consumer Affairs and Business Regulation		Determined by OCABR	\checkmark	
Michigan		-	1,000			
Minnesota			500			
Mississippi						
Missouri	1,000	AG	1,000		\checkmark	
Montana		AG		If notice to residents suggests they can obtain CR	\checkmark	

		Government	Co	onsumer Reporting Agencies	Third	Partyy
State/ Jurisdiction	Consumer Threshold	Government Agency or Agencies	Consumer Threshold	Other Notes	Provision	Days to Notify
Nebraska		AG			\checkmark	
Nevada			1,000			
New Hampshire		AG	1,000		\checkmark	
New Jersey		Division of State Police	1,000			
New Mexico	1,000	AG	1,000		\checkmark	45
New York		AG, Department of State, and State Police	5,000		\checkmark	
North Carolina		AG	1,000		\checkmark	
North Dakota	250	AG				
Ohio			1,000		\checkmark	
Oklahoma		Real Estate Commission				
Oregon	250	AG	1,000		\checkmark	
Pennsylvania			1,000			
Puerto Rico		Department of consumer affairs			\checkmark	
Rhode Island	500	AG	500			
South Carolina	1,000	Department of consumer affairs	1,000		\checkmark	
South Dakota	250	AG				
Tennessee			1,000		\checkmark	
Texas	250	AG	10,000		\checkmark	
U.S. Virgin Islands					\checkmark	
Utah					\checkmark	
Vermont		AG	1,000		\checkmark	
Virginia		AG	1,000		\checkmark	
Washington	500	AG, Insurance Commissioner			\checkmark	
West Virginia			1,000			
Wisconsin			1,000		\checkmark	
Wyoming						
Total					52	

Government, Consumer Reporting Agencies and Third Party Notification

	Possible P	enalty Type	Notice Method	Max per V	iolation (\$)
State/ Jurisdiction	Civil	Criminal	Private Action Possible	Total	Per Individual
Alabama	\checkmark			500,000	
Alaska			\checkmark	50,000	500
Arizona	\checkmark			500,000	10,000
Arkansas	\checkmark	\checkmark			
California	\checkmark		\checkmark	250,000	
Colorado					
Connecticut	\checkmark				
Delaware	\checkmark				
District Of Columbia	\checkmark		\checkmark		
Florida	\checkmark				
Georgia	\checkmark			500,000	
Guam	\checkmark			150,000	
Hawaii	\checkmark		\checkmark		
Idaho	\checkmark			25,000	
Illinois	\checkmark				
Indiana	\checkmark			150,000	
Iowa	\checkmark			40,000	
Kansas	\checkmark				
Kentucky					
Louisiana	\checkmark		\checkmark	5,000	
Maine	\checkmark				
Maryland	\checkmark		\checkmark		
Massachusetts	\checkmark				
Michigan	\checkmark	\checkmark		750,000	250
Minnesota	\checkmark	\checkmark		25,000	
Mississippi					
Missouri	\checkmark			150,000	
Montana		\checkmark			

Potential Penalties

	Possible Po	enalty Type	Notice Method	Max per V	iolation (\$)
State/ Jurisdiction	Civil	Criminal	Private Action Possible	Total	Per Individual
Nebraska	\checkmark				
Nevada	\checkmark	\checkmark			
New Hampshire	\checkmark		\checkmark		
New Jersey	\checkmark				
New Mexico	\checkmark			150,000	
New York	\checkmark				
North Carolina	\checkmark	\checkmark			
North Dakota	\checkmark				
Ohio	\checkmark				
Oklahoma	\checkmark				
Oregon	\checkmark				
Pennsylvania	\checkmark				
Puerto Rico	\checkmark				
Rhode Island	\checkmark				
South Carolina	\checkmark		\checkmark		
South Dakota	\checkmark				
Tennessee	\checkmark		\checkmark		
Texas	\checkmark				
Utah	\checkmark			100,000	
Vermont	\checkmark				
U.S. Virgin Islands	\checkmark		\checkmark		
Virginia	\checkmark		\checkmark	150,000	
Washington	\checkmark		\checkmark		
West Virginia	\checkmark			150,000	
Wisconsin	\checkmark				
Wyoming	\checkmark				
Total	53	6	12		

Potential Penalties

Appendix C

Law Firm Sources' Posted Disclaimers and Websites

Davis, Wright, Tremaine

Disclaimer: Davis Wright Tremaine's Privacy & Security practice group maintains this summary of the 50 state data breach notification statutes (plus the statutes for Washington, D.C., Guam, Puerto Rico, and the U.S. Virgin Islands). The summary should help answer questions about state data breach notification requirements but it is not intended to provide legal advice, which can only be given in response to inquiries regarding particular situations.

https://www.dwt.com/gcp/state-data-breach-statutes, visited on September 16, 2020.

Perkins Coie

Disclaimer: Perkins Coie's Privacy & Security practice maintains a comprehensive chart that summarizes state laws regarding security breach notification. The chart is for informational purposes only and is intended as an aid in understanding each state's sometimes-unique security breach notification requirements.

https://www.perkinscoie.com/en/news-insights/security-breach-notification-chart.html, visited on September 16, 2020.

Foley & Lardner

Disclaimer: This chart should be used for informational purposes only because the recommended actions an entity should take if it experiences a security event, incident, or breach vary depending on the specific facts and circumstances. Further, data breach notification laws change frequently. The chart is a summary of basic state notification requirements that apply to entities who "own" data. This chart does not cover non-owners of data. If you do not own the data at issue, consult the applicable laws and contact legal counsel.

https://www.foley.com/-/media/files/insights/publications/2020/09/20mc29862-data-breach-chart-090120.pdf, visited on September 16, 2020.

Baker & Hostetler

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https://www.bakerlaw.com/BreachNotificationLawMap, visited on September 16, 2020.