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DEATH BY RECKLESS DESIGN: THE NEED FOR STRICTER CRIMINAL STATUTES FOR ENGINEERING-RELATED HOMICIDES

Michael Willats

When traveling over a skywalk, or driving across a bridge, most people do not expect the structure to collapse at any moment. This confidence comes from the great faith the public places in the abilities of engineers and other design professionals. In order to protect that faith and safeguard the public, states require those engaged in the engineering profession to obtain certain licenses. When an engineer acts in a way that consciously deviates from the duties imposed on him through these licensing requirements, and someone dies as a result, criminal liability must attach to his actions.

1. See Duncan v. Mo. Bd. for Architects, Prof'l Eng'rs and Land Surveyors, 744 S.W.2d 524, 527 (Mo. Ct. App. 1988) (describing the collapse of two hotel walkways).

2. See Monica Davey, At Bridge Site, Search of River Moves Slowly, N.Y. TIMES, Aug. 3, 2007, at A1 (describing the search for missing individuals following the “collapse of the most heavily traversed bridge in Minnesota”).

3. The term engineer is essentially interchangeable with the word architect in most courts, because the requirements and duties are similar for each. Jeff Sobel, Comment, Architect Tort Liability in Preparation of Plans and Specifications, 55 CAL. L. REV. 1361, 1361 n.3 (1967); see also Note, Architectural Malpractice: A Contract-Based Approach, 92 HARV. L. REV. 1075, 1075 n.1 (1979).

In recent years, construction projects have become increasingly complex. Consequently, criminal statutes must be updated to prevent those in the design industry from ignoring their duties and allowing flawed designs to enter public use. When a design fails, the failure can result in massive loss of life. As

5. See, e.g., NAT'L TRANSP. SAFETY BD., HIGHWAY ACCIDENT REPORT: CEILING COLLAPSE IN THE INTERSTATE 90 CONNECTOR TUNNEL BOSTON, MASSACHUSETTS 15 (2007), available at http://www.ntsb.gov/publictn/2007iHAR0702.pdf (hereinafter NTSB) (describing a project in Boston called the “Big Dig”). The Boston project known as the “Big Dig” undertook the design and construction of the replacement of the “Central Artery” through Boston.” Id. The intricacies in this project were largely based on the necessity to minimize its effect on the public. Id. The construction required that the existing highway remain open for public use, while the replacement was being constructed beneath it underground. Id. The construction of this underground highway also required crossing a subway line as well as tunneling under a number of existing railroad tracks, all of which had to be done without causing disruption to any of these services. Id.

Beyond minimizing the effect on the public, new construction can pose unique challenges as physical limits are stretched by the human mind. Taipei 101 is a recently constructed high rise tower located in Taiwan that reaches 101 stories into the sky. Chris Hogg, Taipei 101: A View From the Top, BBC NEWS, Dec. 31, 2004, http://news.bbc.co.uk/2/hi/asia-pacific/4137865.stm. The building has been classified as the tallest building in the world. Id. Because Taipei 101 stands in one of the world’s most active earthquake zones, special design requirements were needed to achieve this special status. Id. To address this situation, the building’s designers supported the building with “380 concrete piles, each sunk into the soil to a depth of 80[ meters]” and installed a “606 metric tonne[.] . . . ‘damper’ designed to sway from side to side, to reduce the movement if the tower is hit by high winds.” Id. Beyond earthquake protection, this combination of safety precautions will also help to provide a 40% reduction to the effects of a typhoon. Id. Taipei 101 is just one example where the physical limits of design are stretched to allow human creativity and ingenuity to be attained.

Another example of engineering ingenuity is the Grand Canyon Skywalk. The Skywalk is a seventy-foot-long glass-bottomed walkway that cantilevers over the Grand Canyon. Sam Lubell, Let’s Take a Skywalk: The Grand Canyon Skywalk is Breathtaking—But Costly, BUSINESSWEEK, Apr. 16, 2007, available at http://www.businessweek.com/innovate/content/apr2007/id20070416_894938.htm. The skywalk is “suspended 4000 feet above the [Canyon bottom].” Grand Canyon Skywalk, http://destinationgrandcanyon.com/skywalk.html (last visited Feb. 24, 2009). To provide maximum safety to the public in its use of the walkway, it was designed to support “more than 71 million pounds . . . and sustain winds in excess of 100 miles per hour from 8 different directions, as well as an 8.0 magnitude earthquake within 50 miles.” Id.

In addition to creating designs that protect structures from the environment, builders are also beginning to implement environmentally friendly designs. See, e.g., David Littlejohn, The State of Mayne’s New Federal Office Building, THE WALL STREET JOURNAL, Nov. 15, 2007, at D7. Beyond designs that merely limit a building’s consumption of resources, some designs have gone as far as having the building itself made from recycled materials. See id. As ecological concerns continue to grow, the demand on engineering design will continue to grow as well.

6. See Duncan, 744 S.W.2d at 527 (describing the falling of walkways resulting in the death of more than one hundred people and the injury of many more).

In August 2007, the “most heavily traversed bridge in Minnesota” collapsed, crashing into the river below. See Davey, supra note 2. The collapse took the lives of thirteen people and injured one hundred more. Associated Press, NTSB: Minneapolis Bridge that Collapsed had Design Flaw, CNN.COM, Jan. 15, 2008, http://www.cnn.com/2008/US/01/15/bridgecollapse.ap/#cnnSTCText. Although there was wide speculation that the forty-year-old bridge collapsed as a result of a maintenance issue, the National Transportation Safety Board released an interim report
projects become more complex, it becomes more important for design engineers to constantly consider the “safety, health and welfare of the public.”\(^7\) Deterrence is best achieved by imposing criminal liability on the individual and the company whose acts or omissions created the problem.\(^8\) Criminal liability also puts others in the field on notice as to the type of conduct that will lead to penalties.\(^9\) The deterrent effect created by criminal laws with high penalties is not attainable through civil sanctions alone.\(^10\)

The statutory wording varies from state to state, but the general standard is that a person will be held responsible for involuntary manslaughter when his

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8. See Douglas S. Anderson, Corporate Homicide: The Stark Realities of Artificial Beings and Legal Fictions, 8 PEPP. L. REV. 367, 416 (1981) (explaining that the attachment of criminal liability generally provides for the imposition of a larger penalty as well as the stigmatization of those convicted).

9. See id. (explaining that attaching the stigma of criminal liability can advertise to others the possible consequences of their actions).

10. See id. at 378 (acknowledging that certain types of wrongdoing cannot be deterred by civil liability and, without attaching criminal liability, that wrongdoing will likely recur).
act or omission shows a disregard or indifference for human life.\textsuperscript{11} The question then becomes: what type of conduct will meet this standard? When all of the applicable design standards are met and an accident nonetheless occurs, liability should not apply.\textsuperscript{12} However, when there is a high probability of harm,\textsuperscript{13} and no preventative or remedial measures are taken, liability must apply.

Under current statutes, the penalty for being found liable for a death differs based on who committed the crime. Whereas an individual found liable would likely face jail time,\textsuperscript{14} a corporation found liable for the same offense would only be subject to a small fine.\textsuperscript{15} This calls into question whether current statutes are sufficient as drafted.

A certain level of personal liability is one of the biggest reasons why people choose one business structure over another.\textsuperscript{16} The limited liability that a corporation provides may prevent an individual shareholder from being held criminally liable, but it does not prevent the attachment of criminal liability to the corporation.\textsuperscript{17} In order to deal with today's business structures, criminal statutes must be amended to properly punish those who implement substandard designs and to deter others from attempting to do so.

This Comment begins by examining the areas of engineering that provide opportunity for the creation of liability and the issues that prevent civil liability alone from being an adequate deterrent. It then examines how liability can attach to both the engineer and his company. Next, this Comment examines current manslaughter statutes from various jurisdictions and the possible penalties that may be imposed upon conviction. This Comment then discusses

\textsuperscript{11} See, e.g., ALA. CODE § 13A-5-6 (LexisNexis 2005); id. § 13A-5-11 (LexisNexis Supp. 2007); id. § 13A-6-3 (LexisNexis 2005); CAL. PENAL CODE § 193 (West Supp. 2008); id. § 672 (West 1999); COLO. REV. STAT. § 18-1.3-401 (2008); DEL. CODE ANN. tit. 11, § 4205 (2007); id. § 4208; FLA. STAT. ANN. § 775.082 (West Supp. 2008); id. § 775.083 (West 2005); GA. CODE ANN. § 17-10-3 (2008); MISS. CODE ANN. § 97-3-25 (West 2005); MO. ANN. STAT. § 558.011 (West Supp. 2008); id. § 560.011 (West 1999); id. § 560.021; N.Y. PENAL LAW § 70.00 (McKinney Supp. 2008); id. § 80.00 (McKinney 2004); id. § 80.10; WIS. STAT. ANN. § 939.50 (West 2005).

\textsuperscript{12} See People v. Warner-Lambert Co., 414 N.E.2d 660, 661 (N.Y. 1980) (explaining that when it was not possible to foresee the harm or take any measures to prevent it, no criminal liability may attach).

\textsuperscript{13} BLACK'S LAW DICTIONARY 1298 (8th ed. 2004) (noting that a high probability of harm occurs through a reckless act or an omission that creates “a substantial and unjustifiable risk of harm to others and [is done] by a conscious (and sometimes deliberate) disregard for or indifference to that risk”).

\textsuperscript{14} See, e.g., GA. CODE ANN. § 17-10-3(a)(1) (describing the allowable prison sentence for an involuntary manslaughter conviction as up to twelve months).

\textsuperscript{15} See, e.g., id. (noting that the fine for involuntary manslaughter is $1000).

\textsuperscript{16} See DAVID G. EPSTEIN, RICHARD D. FREER, MICHAEL J. ROBERTS & GEORGE B. SHEPHERD, BUSINESS STRUCTURES 148 (2d ed. 2007) (explaining that the risk to corporate owners is normally limited to what they paid for their shares of their stock).

\textsuperscript{17} See infra Part I.C.2.
what type of act creates criminal liability and who should be held responsible for these acts. It then suggests a criminal statute that would maximize deterrence. Finally, this Comment discusses the danger of the continuing use of current statutes and their applicable punishments in this context.

I. ISSUES AFFECTING CIVIL AND CRIMINAL LIABILITY FOR ENGINEERS AND ENGINEERING CORPORATIONS

A. Professional Roles and Requirements Provide Opportunities for Liability

Engineers and design professionals are involved in numerous stages of the construction process. The first stage of any construction project is the creation of design plans. The majority of claims against engineers arise from errors in the work performed during this first stage. On completion of the design, documents are provided to individuals or groups who want to bid on the building contract. The bidding process is typically conducted in a short period of time and does not allow for thorough review of the plans. This forces bidders to rely on the information provided. As a result, the engineer owes any person receiving the bid documents a duty of care. After the design and bidding period, an engineer’s services may be retained to oversee the actual building phase. Further services may include ensuring compliance with the design plans or authorizing changes. One example of these services is the review and approval of shop drawings. Review of plan compliance may also create liability. This liability would flow from any authorization of deviation from the approved plans. However, the act of allowing the change is not what creates liability; the liability instead ensues

19. Id.
21. SIMMONS, supra note 18, at 10 (explaining that bidding documents are design plans used by the contractors who plan to bid on the job to determine the amount of money it will cost them to construct the project).
22. SAMUELS, supra note 4, at 44.
23. Id.
24. See id. (explaining that undertaking a thorough design review for accuracy would force bidders to duplicate the work already done and add a great deal of cost).
25. SIMMONS, supra note 18, at 11.
26. Id.
27. See Duncan v. Mo. Bd. for Architects, Prof’l Eng’rs and Land Surveyors, 744 S.W.2d 524, 529 (Mo. Ct. App. 1988). Shop drawings are submitted to “provide assurance for the owner that the fabricator is conforming to the contract and that any engineering work conforms to acceptable standards.” Id. at 530.
29. See id.
when the change is approved but fails to conform to either the approved plan
or an acceptable substitute design.\(^{30}\)

**B. Issues Preventing Civil Remedies from Achieving Optimal Deterrence**

Some commentators argue that a civil fine can act as a sufficient deterrent.\(^{31}\) However, these commentators fail to consider the effects that insurance\(^ {32}\) and statutes of repose\(^ {33}\) have on individuals and the companies for which they work.

1. **Insurance and Its Ability to Remove the Sting of Civil Sanctions**

Engineering design is a business that is "under constant pressure to prepare
specifications and drawings quickly."\(^ {34}\) The nature of the business creates the
opportunity for liability.\(^ {35}\) Very few engineers can afford to pay for successful
claims against them.\(^ {36}\) Consequently, many obtain insurance to protect
themselves from potential financial ruin.\(^ {37}\) Policies typically range from
$100,000 of minimum coverage to as much as $25,000,000 or more.\(^ {38}\) Beyond
indemnifying any claim brought against the engineer, as part of the policy, the
insurance company takes on the duty to defend the engineer in the suit.\(^ {39}\)

There are many forms of insurance available to an engineer, but the policies
are usually for either liability or property insurance.\(^ {40}\) A basic policy will have
limitations and exclusions to coverage.\(^ {41}\) However, the parties can agree to
extend coverage with a more comprehensive policy.\(^ {42}\) It may not be one policy

\(^{30}\) See, e.g., Duncan, 744 S.W.2d at 530 (discussing how an approved change of plans
resulted in liability).

\(^{31}\) See Developments in the Law—Corporate Crime: Regulating Corporate Behavior
Through Criminal Sanctions, 92 HARV. L. REV. 1227, 1370 (1979) [hereinafter Developments in
the Law] (arguing that if the amount of the fine is large enough it will provide the appropriate
level of deterrence).

\(^{32}\) See infra Part I.B.1.

\(^{33}\) See infra Part I.B.2.

\(^{34}\) FRANK J. BALTZ, SELECTING A PROFESSIONAL LIABILITY INSURANCE POLICY FOR

\(^{35}\) See id.

\(^{36}\) SAMUELS, supra note 4, at 77.

\(^{37}\) See id.

\(^{38}\) BALTZ, supra note 34, at 34.

\(^{39}\) SAMUELS, supra note 4, at 78; see also BALTZ, supra note 34, at 27.

\(^{40}\) SAMUELS, supra note 4, at 76. Liability insurance is obtained for protection from third-
party claims that are based on the engineer's "errors or omissions." Id. As expected, property
insurance covers any damage that may occur to the property. Id.

\(^{41}\) See BALTZ, supra note 34, at 7–8. Typical exclusions include any "intentional violation
of federal, state or local law." Id. at 8.

\(^{42}\) See id. at 8. In the case of claims such as professional malpractice, the insurance
company's answer to increased levels of coverage has been to seek higher premiums from the
insured. See Peter J. Neeson, The Current Status of Professional Architects' and Engineers'
that creates maximum coverage, but rather the combination of numerous policies that will provide the best protection for the engineer.43

Similarly, the scope of coverage varies from policy to policy, and the duration of coverage can differ as well.44 The two main types of policies are "claims-made" and "occurrence" policies.45 A "claims-made" policy is one that covers only those claims made while the policy is current.46 An "occurrence" policy covers claims caused by acts that occurred while the policy was current, regardless of whether it is presently current.47 As the majority of engineering policies are "claims-made,"48 many engineers maintain policies for the jurisdictional statutory period following their retirement to ensure continued protection from liability.49

2. The Statutes of Repose and Their Role in Preventing Claims from Being Filed

Claims generally have a set statutory period during which they must be filed called the statute of limitations period.50 When injuries are the result of construction or design errors, the corresponding claims may also have to satisfy a statute of repose.51 Even though the exact definition of a statute of repose will vary based on the jurisdiction, the statute can largely be classified as an "outer time limit" during which a claim must be filed.52

One of the key differences between a statute of limitations and a statute of repose is the time when each begins to run. While the statute of limitations on

43. See BALTZ, supra note 34, at 35–36.
44. See SAMUELS, supra note 4, at 80.
45. See id.
46. Id.
47. Id.
48. Id.
49. See id. During retirement, policy rates are generally much lower than the rates for policies covering a working engineer. Id.
50. 51 AM. JUR. 2D Limitation of Actions § 9 (2000).
52. See W. PAGE KEETON ET AL., PROSSER & KEETON ON THE LAW OF TORTS 167 (5th ed. 1984). Some jurisdictions consider a statute of repose to be simply another name for a statute of limitations. Francis E. McGovern, The Variety, Policy and Constitutionality of Product Liability Statutes of Repose, 30 AM. U. L. REV. 579, 582–83 (1981). Another theory is that a statute of repose is a term to describe a larger grouping of statutes of limitations. Id. at 583. Still another view finds that the difference between a statute of repose and a statute of limitations is when they begin to run, with a statute of repose usually "begin[ning] to run at a time unrelated to the . . . cause of action." Id. at 584. A statute of limitations, on the other hand, "begins to run when all the elements of a cause of action have accrued." Id. at 584–85. There are multiple theories on why these statutes were initiated. One theory is that they protect those defendants who would suffer most from an indefinite statutory period, and the other is that they protect the groups that have the most political muscle. See W. PAGE KEETON ET AL., supra, at 167.
a negligence claim may not begin to run until the harm has occurred,\textsuperscript{53} in that time the statute of repose may have already expired, barring the claim.\textsuperscript{54} The determination of when a statute of repose will begin to run is based on the language of the statute.\textsuperscript{55} The two most common starting points are when a

\textsuperscript{53} See McGovern, supra note 52, at 584–85.

\textsuperscript{54} See id.; see also, e.g., Hale v. Depaoli, 192 P.2d 815, 816 (Cal. Ct. App. 1948) (describing the eighteen-year period between house construction and the design error causing harm), opinion vacated by 201 P.2d 1 (Cal. 1948); Yarbro v. Hilton Hotels Corp., 655 P.2d 822, 824–25 (Colo. 1982) (en banc) (barring of a wrongful death claim based on an architect's failure to design and specify safety precautions for hotel windows from which the decedent fell to her death because claim was brought “more than ten years after . . . substantial completion”); Zapata v. Burns, 542 A.2d 700, 702 (Conn. 1988) (explaining that multiple wrongful death claims against the architectural design firm who designed and supervised the construction of a bridge that collapsed were barred because the claims were brought “seven years after substantial completion”); State v. Echeverri, 736 So. 2d 791, 791–92 (Fla. Dist. Ct. App. 1999) (explaining that wrongful death claims relating to errors in highway design against the architect responsible were “barred by the [fifteen-year] statute of repose”); Burmaster v. Gravity Drainage Dist. No. 2 of the Parish of St. Charles, 366 So. 2d 1381, 1384, 1388 (La. 1978) (holding that a ten-year statute of repose barred a wrongful death claim for an engineer's failure to provide proper safety precautions in the design); Reich v. Jesco, Inc., 526 So. 2d 550, 551 (Miss. 1988) (explaining that a claim against the designer of a roof that collapsed was barred by the statute of repose as the collapse happened twelve years after construction); Blaske v. Smith & Entzeroth, Inc., 821 S.W.2d 822, 825 (Mo. 1991) (noting that multiple wrongful death claims resulting from architectural and engineering design of a highway exit ramp were barred by the statute of repose because these injuries occurred more than twenty years after construction was completed); Lamb v. Wedgewood S. Corp., 302 S.E.2d 868, 869–71 (N.C. 1983) (holding that a wrongful death claim based on a failure to design adequate safety precautions that caused the decedent to fall out of a hotel window to his death was barred against the designer by the statute of repose); St. Paul Fire & Marine Ins. Co. v. Getty Oil Co., 782 P.2d 915, 916–17 (Okla. 1989) (explaining that a claim against the designer for a ceiling collapse twenty years after construction was barred by the statute of repose); Sobel, supra note 3, at 1378 & n.129 (referencing the California Supreme Court's ruling on Hale when discussing that the damage from a design defect may take years to occur). An example of the effect statutes of repose can have on statutes of limitations is the following:

[I]n a jurisdiction having a three-year tort statute of limitations as well as an architects’ and builders’ statute of repose requiring all actions to be commenced within ten years after completion of the improvement, a person injured in the sixth year after completion is subject to the normal statute of limitations and has three years to file suit. On the other hand, a person injured on the 364th day of the ninth year following completion of the improvement has only one day within which to commence an action.


\textsuperscript{55} See, e.g., D.C. CODE § 12-310(a) (2001) (expressing that the statutory period begins to run at the time of substantial completion); MISS. CODE ANN. § 15-1-41 (West 1999) (beginning the statutory clock at the time of “written acceptance or actual occupancy or use, whichever occurs first”); MONT. CODE ANN. § 27-2-208 (2007) (starting the statutory clock at the time the project is completed).
project is either "substantially completed," or when it has reached "completion."

The length of the statutory period that begins from these starting points varies based on the state. Some states have a period as short as four years, while others provide for longer periods of up to ten years. Even though these time limitations are meant to prevent the ongoing possibility of a claim, limited extensions do exist. Examples of such extensions are when the defect is latent rather than patent, or when the event causing the claim occurs in one of the final years of the statutory period. Additionally, some states do not apply a statutory period for wrongful death claims. This standard is far from the majority, because a number of states clearly list wrongful death as a claim that will be barred when the statutory period expires.

While statutes of repose may bar civil actions, criminal actions may still be pursued after the statute has run. Criminal statutes of limitations generally begin to run after every element of the crime has occurred. Therefore, depending on the jurisdiction, a manslaughter action could be brought

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56. D.C. CODE § 12-310(a)(1)(B). A project will be determined to be "substantially completed when—(A) it is first used, or (B) it is first available for use after having been completed in accordance with the contract or agreement covering the improvement... whichever occurs first." Id. § 12-310(a)(2).

57. MONT. CODE ANN. § 27-2-208(1). The term "completion" means that degree of completion at which the owner can utilize the improvement for the purpose for which it was intended or when a completion certificate is executed, whichever is earlier." Id. § 27-2-208(4)(a).

58. See, e.g., CAL. CIV. PROC. CODE § 337.1(a) (West 2006).

59. See, e.g., MO. ANN. STAT. § 516.097(1) (West Supp. 2007). Other jurisdictions impose statutory periods in between four and ten years. See, e.g., COLO. REV. STAT. § 13-80-104(1)(a) (2007) (preventing claims being made "six years after the substantial completion"); GA. CODE ANN. § 9-3-51(a) (2007) (preventing claims from being made "eight years after substantial completion").

60. Compare CAL. CIV. PROC. CODE § 337.1(a) (providing for a four-year statute of limitations), with id. § 337.15(a) (providing a ten-year period for all latent defects). A deficiency will be termed a "latent deficiency... [when it] is not apparent by reasonable inspection." Id. § 337.15(b).

61. See COLO. REV. STAT. § 13-80-104(2) (explaining that when the action arises during either of the last two years of the statutory period, the injured party has two years from the date of the incident in which to bring a claim).


64. See, e.g., MISS. CODE ANN. § 15-1-51 (explaining that "[s]tatutes of limitation in civil cases shall not run against the state"); see also CAL. CIV. PROC. CODE § 32 (explaining that the violation of an act allows for both a civil and criminal penalty, the prosecution of one does not bar the other); D.C. CODE § 12-310(b)(4) (expressing that the statute of repose does not bar any action brought by the government).

65. See WAYNE R. LAFAVE, JEROLD H. ISRAEL & NANCY J. KING, CRIMINAL PROCEDURE 876 (4th ed. 2004) (explaining that "virtually all jurisdictions provide that the period of limitation begins to run with the commission of the crime that is, when every element in the statutory definition of the offense has occurred").
anywhere from two\textsuperscript{66} to five\textsuperscript{67} years after the death of the victim, regardless of whether the statute of repose had expired.

3. The Effect of Criminal Liability on the Filing of Civil Actions

The Fifth Amendment to the United States Constitution holds that no person shall "be subject for the same offence to be twice put in jeopardy of life or limb."\textsuperscript{68} While this language prevents a person from being charged with the same crime twice, it does leave open the possibility that a person may face a combination of civil and criminal charges on the same subject matter without a violation of the Fifth Amendment.\textsuperscript{69}

When determining whether a civil remedy will violate the double jeopardy clause, the court must determine whether the remedy is "so unreasonable or excessive" that it is actually a criminal penalty.\textsuperscript{70} If the court determines that a civil penalty is as excessive as a criminal penalty, the civil remedy will be barred.\textsuperscript{71} Two examples of civil remedies that have traditionally been found to be free of a criminal nature have been the "revocation of a privilege voluntarily granted[,] such as a professional license[,] . . . and the payment of fixed or

\textsuperscript{66} See, e.g., GA. CODE ANN. § 17-3-1(d) (2008) (calling for the "[p]rosecution [of] misdemeanors [to] be commenced within two years after the commission of the crime"). The time period in which the prosecution must occur may be extended, provided that the person is not a resident of the state, the person who committed the crime remains unknown, or the crime itself remains unknown. See id. § 17-3-2(1)–(2). Other states call for a statute of limitations of three years to bring a manslaughter prosecution. See, e.g., CAL. PENAL CODE § 801 (West 2008); see also COLO. REV. STAT. § 16-5-401(1)(a) (imposing a statute of limitations of three years for the charge of manslaughter).

\textsuperscript{67} See N.Y. CRIM. PROC. LAW § 30.10.2(b) (McKinney Supp. 2008) (calling for the prosecution of a felony within five years of the commission of the crime). As in other states, the time period to bring a criminal prosecution will not include any period where the accused was out of the state or his whereabouts were unknown. Id. § 30.10.4(a). Even when the circumstances prevent the statutory clock from running, the period is not indefinite, as in New York where the "limitation [cannot] be extended by more than five years beyond the period otherwise applicable . . . ." Id.; see also DEL. CODE ANN. tit. 11, § 205(b)(1) (2007) (imposing a five year statute of limitations).

\textsuperscript{68} U.S. CONST. amend. V.


\textsuperscript{70} Rex Trailer Co. v. United States, 350 U.S. 148, 154 (1956).

\textsuperscript{71} See id. The factors used by the Supreme Court in deciding the true nature of a penalty are

[w]hether the sanction involves an affirmative disability or restraint, whether it has historically been regarded as a punishment, whether it comes into play only on a finding of \textit{scienter}, whether its operation will promote the traditional aims of punishment—retribution and deterrence, whether the behavior to which it applies is already a crime, whether an alternative purpose to which it may rationally be connected is assignable for it, and whether it appears excessive in relation to the alternative purpose assigned . . . .

Kennedy v. Mendoza-Martinez, 372 U.S. 144, 168–69 (1963) (footnotes omitted). However, no one factor is dispositive. See id. at 169.
variable sums of money," 72 Because damages sought by civil wrongful death claims are typically monetary, 73 criminal charges would not prevent an individual from bringing a civil claim if it was still a possibility. 74

C. Attaching Criminality to the Individual and the Organization

An owner’s liability may be created and limited solely by the duties listed in the contract between the commercial parties. 75 Because they are not parties to the contract, the duties owed to third parties stem from the nature of the profession itself. 76 Thus, when an engineer’s work falls below the designated professional level of care, he and his company will be liable for any injury a third party may suffer. 77

1. The Imposition of Duty Through Statute and Ethical Codes

Like many groups of professionals in this country, engineers have a licensing board with requirements that vary by state. 78 States have enacted

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74. See supra note 69 and accompanying text.
76. See id. Further, the contract will only list the work to be done, not the standard that the designer needs to apply while carrying it out. Id. Even when parties insert clauses in their contracts to limit their liability to each other, these clauses have no effect on the duties that are owed to the public at large, and are “void as against public policy.” Kroger Co. v. Chimneyville Props., Ltd., 784 F. Supp. 331, 348–49 (S.D. Miss. 1991) (quoting Cappaert v. Junker, 413 So. 2d 378, 382 (Miss. 1982)). In the event parties do not limit the liability between each other through contract,

[the responsibility resting on an architect is essentially the same as that which rests upon the lawyer to his client, or upon the physician to his patient, or which rests upon any one to another where such person pretends to possess some skill and ability in some special employment, and offers his services to the public on account of his fitness to act in the line of business for which he may be employed. The undertaking of an architect implies that he possesses skill and ability, including taste, sufficient to enable him to perform the required services at least ordinarily and reasonably well; and that he will exercise and apply, in the given case, his skill and ability, his judgment and taste, reasonably and without neglect.]

Coombs v. Beede, 36 A. 104, 104–05 (Me. 1896); see also Farrug, supra note 75, at 877 n.10 (quoting the Coombs decision).
77. See, e.g., Farrug, supra note 75, at 879.
78. See ALA. CODE § 34-11-4 (LexisNexis 2007). In New York an applicant needs to do the following:

1. To qualify for a license as a professional engineer an applicant shall fulfill the following requirements:
   (1) Application: file an application with the department;
   (2) Education: have received an education, including a bachelor’s or higher degree based on a program in engineering, in accordance with the commissioner’s regulations;
statutes that require any individual who wishes to practice engineering to obtain board licensing. Upon meeting a state's requirements to obtain a license, the individual will be issued a certificate demonstrating the board's approval and authorization to practice. Once an individual is licensed, he obtains a seal that, accompanied by his signature, will be placed on every plan he approves in his capacity as a professional engineer.

State requirements suggest that only a licensed engineer will be permitted to do design work. On further examination, however, the requirements explain that non-licensed individuals not only can, but must, do design work in order to obtain their own licenses. Although this requirement calls on the licensed

(3) Experience: have at least four years in work satisfactory to the board, provided that the board may accept study beyond the bachelor's degree in partial fulfillment of this requirement;
(4) Examination: pass an examination satisfactory to the board and in accordance with the commissioner's regulations;
(5) Age: be at least twenty-one years of age;
(6) Citizenship or immigration status: be a United States citizen or an alien lawfully admitted for permanent residence in the United States;
(7) Character: be of good moral character as determined by the department; and
(8) Fees: pay a fee of two hundred twenty dollars to the department for admission to a department conducted examination and for an initial license, a fee of one hundred fifteen dollars for each reexamination, a fee of one hundred thirty-five dollars for an initial license for persons not requiring admission to a department conducted examination, and a fee of two hundred ten dollars for each triennial registration period.

4. On recommendation of the board, the department may waive specific requirements, except as to age, character, education and citizenship, in the case of applicants who are possessed of established and recognized standing in the engineering profession and who have practiced lawfully for more than fifteen years.

N.Y. EDUC. LAW § 7206 (McKinney 2001).

79. See ALA. CODE § 34-11-2(a) (condemning a person who is not licensed from practicing or holding himself out as an engineer); see also N.Y. EDUC. LAW § 7202 (preventing anyone not licensed to practice or portray himself as a “professional engineer”).

80. See, e.g., ALA. CODE § 34-11-7(a).

81. See, e.g., id. § 34-11-7(c). By placing his seal and signature on a plan, the engineer is certifying that the work it represents was done by him or under his supervision. See, e.g., COLO. REV. STAT. § 12-25-117(3) (2007).

82. See ALA. CODE § 34-11-2(a) (“No person in either public or private capacity shall practice or offer to practice engineering . . . unless he or she shall first have submitted evidence that he or she is qualified so to practice and shall be licensed by the board . . . .”); FLA. STAT. ANN. § 471.031(1)(a) (West 2006) (explaining that a person may not practice engineering unless he is licensed); GA. CODE ANN. § 43-15-7(a) (2005) (“It shall be unlawful for any person other than a professional engineer to practice or to offer to practice professional engineering in this state.”); MO. ANN. STAT. § 327.191 (West 2008) (stating that no person shall practice as a professional engineer without being licensed or authorized by the state).

83. See ALA. CODE § 34-11-4(1)(a)(1) (requiring at least four years of engineering work after obtaining an engineering degree prior to being eligible for licensure); N.Y. EDUC. LAW § 7206 (requiring four years of work experience or additional education beyond a college degree prior to being eligible for licensure).
engineer to delegate his work, the liability ultimately remains with him because he is required to review and approve any work performed by non-licensed engineers.84

In addition to statutory obligations, engineers must also adhere to the national code of ethics.85 An engineer affects the lives of all the people that come into contact with his work.86 For this reason, the engineering ethics code prohibits an engineer from aiding a person or firm that is illegally practicing engineering, and requires an engineer to report alleged violations to the “appropriate professional bodies . . . [or] public authorities.”87 In addition to reporting others’ violations, one of the engineer’s most important responsibilities is to report his own violations.88 Violations include not only flaws in designs that are being constructed, but also flaws in product or service advertisements.89

The duties an engineer accepts upon entering the profession revolve around the first fundamental canon: an engineer shall “[h]old paramount the safety, health, and welfare of the public.”

84. See State Bd. of Registration for Prof’l Eng’rs v. Rogers, 120 So. 2d 772, 775 (Miss. 1960). While the work is delegable, the liability is not and it is left to the professional to determine whether to approve or reject his subordinates’ work. Id. at 775–76.

85. NSPE, supra note 7. An engineer’s “[f]ailure to follow . . . codes of ethics can . . . give rise to legal liability and disciplinary action against individuals bound by the applicable code.” SAMUELS, supra note 4, at 123.

86. See NSPE, supra note 7, at Preamble. There are six fundamental cannons that an engineer must strive to fulfill in the course of his work:

1. Hold paramount the safety, health, and welfare of the public.
2. Perform services only in areas of their competence.
3. Issue public statements only in an objective and truthful manner.
4. Act for each employer or client as faithful agents or trustees.
5. Avoid deceptive acts.
6. Conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.

Id. § I.

87. Id. § II(1)(c)–(f).

88. See id. § III(1)(a)–(b). William LeMessurier, designer of the Citicorp tower in New York City, learned that his design neglected to consider an important design component, the consequence of which was that the building could potentially fall—in other words, fall down. Joe Morgenstern, The Fifty-Nine-Story Crisis, THE NEW YORKER, May 29, 1995, at 45, 46–48. To fix the problem, LeMessurier needed to “blow the whistle . . . on himself,” exposing himself to enormous liability. Id. at 48. When he weighed the personal problems he would face against the consequences of remaining silent, namely, “betting other people’s lives,” it was clear that he had to speak up. Id. LeMessurier himself best explained the responsibility given to an engineer: “‘You have a social obligation . . . . In return for getting a license and being regarded with respect, you’re supposed to be self-sacrificing and look beyond the interests of yourself and your client to society as a whole.’” Id. at 53.

89. See N.Y. COMP. CODES R. & REGS. tit. 8, § 29.1(b)(12)(i)(a)–(c) (2007). Flaws in product or service advertisement include, but are not limited to, any “false, fraudulent, deceptive or misleading [statements,] . . . guarantees [of] any service[,] . . . [or] claim[s] relating to professional services or products . . . which cannot be substantiated by the licensee.” Id. § 29.1(b)(12)(i)(a)–(c).
health, and welfare of the public." When an engineer undertakes or fails to undertake an act and that act or omission "demonstrates a conscious indifference to a professional duty[,] it would appear to be a reckless act or more seriously[,] a willful and wanton abrogation of professional responsibility."1

2. When to Charge a Corporation and Its Agents or Officers

The application of criminal law to a corporation is based on the premise that "[a] corporation is whatever the relevant state law says it is."2 At one point, a corporation was seen as an artificial being incapable of committing a crime.3 States have since modified their statutes to attach criminal liability to acts committed by corporations.4

90. NSPE, supra note 7, § I(I). Conflicts with this duty can arise in any form, but in most cases, conflicts will arise in the attempt "to save money or otherwise further the client’s or employer’s interest." SAMUELS, supra note 4, at 125. When these types of situations arise, an engineer must remember that "[t]he duty to the public encompasses more than safety[,] . . . [i]t also includes a duty to act with fairness and integrity." Id.

91. Duncan v. Mo. Bd. for Architects, Prof'l Eng'rs and Land Surveyors, 744 S.W.2d 524, 533 (Mo. Ct. App. 1988). Awareness of a duty can derive from:
The very nature of the obligations and responsibility of a professional engineer would appear to make evident to him the probability of harm from his conscious indifference to professional duty and conscious indifference includes indifference to the harm as well as to the duty. The . . . engineer’s duty is to determine that the . . . plans which he designs or approves will provide . . . safety because if they do not[,] a strong probability of harm exists. Indifference to the duty is indifference to the harm.


93. Trustees of Dartmouth Coll. v. Woodward, 17 U.S. (4 Wheat.) 518, 636 (1819) (explaining that "[a] corporation is an artificial being, invisible, intangible, and existing only in contemplation of law").

94. See S. Ry. Co. v. State, 54 S.E. 160, 161 (Ga. 1906) (explaining the old rule that a corporation “was created for lawful purposes and had no power to do anything unlawful”).

95. In Delaware, a corporation can be guilty of a crime when:

(1) The conduct constituting the offense consists of an omission to discharge a specific duty of affirmative performance imposed on organizations by law; or

(2) [t]he conduct constituting the offense is engaged in, authorized, solicited, requested, commanded or recklessly tolerated by the board of directors or by a high managerial agent acting within the scope of employment and in behalf of the organization . . . .

DEL. CODE ANN. tit. 11, § 281(1)–(2) (2007). California has also imposed corporate liability through the combination of multiple statutes. California’s first step was to make “the word ‘person’ include[] a corporation as well as a natural person.” CAL. PENAL CODE § 7 (West 1999). Next it determined that “all persons are capable of committing crimes.” ld. § 26. Finally it provided that “[a]ll persons who commit, in whole or in part, any crime” can be punished under state law. ld. § 27(a)(1). In addition, the California case law explains why corporations may be charged with committing crimes against property or persons. See Granite Constr. Co. v. Super. Ct. of Fresno County, 197 Cal. Rptr. 3, 5 (Ct. App. 1983) (noting that the theory that a corporation cannot benefit from a crime against the person fails to consider “economic benefits . . . [gained through] shortcut[ting] expensive safety precautions, respond[ing] forcibly to strikes,
Corporate liability for crimes has primarily been determined by state statutes. Whether a corporate agent or officer can be held personally liable for crimes of the corporation has been decided through case law in some jurisdictions and by statute in others. The extension of corporate liability to an agent or officer is based largely on the fact that "[a] corporation can only act through its agents. Their acts, within the scope of their authority, are the acts of the corporation." The very nature of or engage[ing] in criminal anticompetitive behavior."). While California uses multiple statutes and case law, New York finds that a corporation can be held responsible when:

(a) The conduct constituting the offense consists of an omission to discharge a specific duty of affirmative performance imposed on corporations by law; or

(b) [t]he conduct constituting the offense is engaged in, authorized, solicited, requested, commanded, or recklessly tolerated by the board of directors or by a high managerial agent acting within the scope of his employment and in behalf of the corporation; or

(c) [t]he conduct constituting the offense is engaged in by an agent of the corporation while acting within the scope of his employment and in behalf of the corporation, and the offense is (i) a misdemeanor or a violation, (ii) one defined by a statute which clearly indicates a legislative intent to impose such criminal liability on a corporation, or (iii) any offense set forth in title twenty-seven of article seventy-one of the environmental conservation law.

N.Y. PENAL LAW § 20.20.2(a)–(c) (McKinney 2004).

96. See supra note 95 and accompanying text.

97. See infra note 99 and accompanying text.

98. See, e.g., N.Y. PENAL LAW § 20.25; see also DEL. CODE ANN. tit. 11, § 282.

99. See Otis v. Super. Ct. of Los Angeles County, 82 P. 853, 854 (Cal. 1905); see also Sea Horse Ranch v. Super. Ct. of San Mateo County, 20 Cal. Rptr. 2d 681, 688–89 ( Ct. App. 1994) (holding that the president of a corporation could be charged with involuntary manslaughter where it was shown that he had knowledge of the potential of escaping horses which caused the victim's death, and also had sufficient control to order corrections to the fence they escaped through); People v. Conway, 117 Cal. Rptr. 251, 258 ( Ct. App. 1974) (concluding that the president of a car dealership had control over the business and allowed illegal activities to continue after being warned repeatedly); People v. Epstein, 4 P.2d 555, 556 (Cal. Dist. Ct. App. 1931) (declaring that the signing of checks was direct participation in activity of illegally misappropriating corporate funds); People v. Int'l Steel Corp., 226 P.2d 587, 592 (Cal. App. Dep't Super. Ct. 1951) (emphasizing that knowledge alone is not enough to make a person, like a corporate secretary who possessed no control over the illegal operations, liable for the actions of the corporation).

100. Overland Cotton Mill Co. v. People, 75 P. 924, 926 (Colo. 1904) (holding that an agent of a corporation in performing his job should know or should be able to determine whether he or a person under his control was engaging in illegal activity); see also Vulcan Last Co. v. State, 217 N.W. 412, 415 (Wis. 1928) ("Corporations must of necessity act through their agents . . . . If the acts are within the scope of the authority of the agent, the corporation is liable criminally for the acts although the acts may not have been expressly authorized by the corporation, even if the corporation has expressly forbidden its agent to act in the manner that made it answerable to punishment under the criminal law.") (citing Overland Cotton Mill, 75 P. at 926.).
being an officer or agent of a corporation provides the person with the powers and added responsibilities of overseeing the work and actions undertaken by his subordinates.  

In the jurisdictions that apply corporate liability to an agent or officer by statute, the statutory language suggests that a person must have been the one committing the act on the corporation’s behalf or must have been in control of those who committed the act.

D. The Evolution of Manslaughter and the Punishments Tied to Convictions

Even though manslaughter classifications and punishments vary from state to state, the current statutes all stem from the general definition of manslaughter that was created at common law.

1. Involuntary Manslaughter at Common Law

An act may be criminal even if it is without statutory regulation when it reaches a level of negligence higher than that of ordinary negligence. The act must be shown to either disregard the possibility that harm would be inflicted on human life or indifference to the possible results. Types of negligence that have been found sufficient to make an act criminal include negligence that is “aggravated, culpable, gross, or reckless.” The exact definition of what can make a negligent act become a criminal act is determined by each state.

101. See State ex rel. Kropf v. Gilbert, 251 N.W. 478, 485 (Wis. 1933). When an officer or agent’s job responsibilities include the management or control over subordinates, failing to be aware of the actions creates liability just as if the officer or agent had given his approval. Id.

102. See N.Y. PENAL LAW § 20.2; see also DEL. CODE ANN. tit. 11, § 282.

103. See infra Part I.D.2.

104. See infra Part I.D.3.

105. See infra Part I.D.1.

106. See 26 AM. JUR. Homicide § 210 (1940) [hereinafter Homicide]. Negligence is defined as “[t]he failure to exercise the standard of care that a reasonably prudent person would have exercised in a similar situation.” BLACK’S LAW DICTIONARY 1061 (8th ed. 2004).

107. See Homicide, supra note 106, at § 210; see also 40 AM. JUR. 2D Homicide § 61 (2008) (following the theory that more than ordinary negligence is required to create criminality).


2. Variations of Manslaughter in Current State Statutes

Of the jurisdictions surveyed, culpable negligence,\(^ {110}\) criminal negligence,\(^ {111}\) and recklessness\(^ {112}\) were the various standards required to attach criminality to an act.

a. Culpable Negligence

Both the Florida and Mississippi legislatures have decided that a person commits manslaughter when he kills a human being through culpable negligence.\(^ {113}\) The definition of culpable negligence has come from case law of the jurisdictions; in Florida culpable negligence has been defined as:

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\text{[N]egligence . . . of a gross and flagrant character, evincing reckless disregard of human life, or of the safety of persons exposed to its dangerous effects; or there is that entire want of care which would raise the presumption of a conscious indifference to consequences, or which shows wantonness or recklessness or a grossly careless disregard of the safety and welfare of the public, or that reckless indifference to the rights of others which is equivalent to an intentional violation of them.}\(^ {114}\)
\]

The difference between gross and culpable negligence is that the former is a disregard for the possible outcome, as opposed to the latter, which is a realization and indifference to what may transpire.\(^ {115}\) Culpable negligence can

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110. See FLA. STAT. ANN. § 782.07(1) (West 2007); MISS. CODE ANN. § 97-3-47 (West 2005).

111. See CAL. PENAL CODE § 192(b) (West Supp. 2008); COLO. REV. STAT. § 18-3-105 (2007); DEL. CODE ANN. tit. 11, § 631 (2007); GA. CODE ANN. § 16-5-3(a) (2007); MO. ANN. STAT. § 565.024(3) (West Supp. 2008); N.Y. PENAL LAW § 125.10 (McKinney 2004).

112. See ALA. CODE § 13A-6-3(a)(1) (LexisNexis 2005); COLO. REV. STAT. § 18-3-104(1)(a); DEL. CODE ANN. tit. 11, § 632(1); KAN. STAT. ANN. § 21-3404(a) (Supp. 2006); MO. ANN. STAT. § 565.024(1)(1); N.Y. PENAL LAW § 125.15.

113. See FLA. STAT. ANN. § 782.07(1) ("[T]he killing of a human being by the act, procurement, or culpable negligence of another, without lawful justification . . . is manslaughter . . . ."); MISS. CODE ANN. § 97-3-47 (defining each "killing of a human being, by the act, procurement, or culpable negligence of another, and without authority of law . . . shall be manslaughter").

114. Florida S. Ry. Co. v. Hirst, 11 So. 506, 513 (Fla. 1892); see also Miller v. State, 75 So. 2d 312, 313–14 (Fla. 1954); Cannon v. State, 107 So. 360, 363 (Fla. 1926); Sapp v. State, 913 So. 2d 1220, 1224 (Fla. Dist. Ct. App. 2005). Mississippi's definition of culpable negligence is as follows:

\[
\text{[N]egligence of a higher degree than that which in civil cases is held to be gross negligence, and must be a negligence of a degree so gross as to be tantamount to a wanton disregard of, or utter indifference to, the safety of human life, and that this shall be so clearly evidenced as to place it beyond every reasonable doubt.}
\]

Smith v. State, 20 So. 2d 701, 706 (Miss. 1945).

115. See Smith, 20 So. 2d at 705 ("[C]ulpable negligence should be defined as the conscious and wanton or reckless disregard of the probabilities of fatal consequences to others as a result of the willful creation of an unreasonable risk thereof.").
be achieved through the specific act that caused death or through the actions that “set the stage” for the resulting death.  

b. Criminal Negligence

The term criminal negligence can have different meanings depending on whether it is used in a manslaughter statute or a criminal negligence statute.  

i. Criminal Negligence in a Manslaughter Statute

In jurisdictions that require criminal negligence to support a manslaughter charge, the term is not expressly listed in the statutory language, but like the culpable negligence jurisdictions, is applied through case law. The definition of criminal negligence used by the California courts requires that

“[t]he negligence must be aggravated, culpable, gross, or reckless, that is, the conduct of the accused must be such a departure from what would be the conduct of an ordinarily prudent or careful man under the same circumstances as to be incompatible with a proper regard for human life, or, in other words, a disregard of human life or an indifference to consequences.”

When the Georgia courts chose a definition of criminal negligence, they chose a simpler definition, making it equivalent to recklessness.

116. See Dolan v. State, 85 So. 2d 139, 159 (Fla. 1956); see also Sapp, 913 So. 2d at 1225-26 (finding that the defendant could be found guilty of manslaughter for an accidental shooting that occurred when the defendant operated a gun without knowledge of how it worked while in a group of people and under the influence of drugs and alcohol).

117. See CAL. PENAL CODE § 192(b) (West Supp. 2008); GA. CODE ANN. § 16-5-3(a) (2007).

118. See COLO. REV. STAT. § 18-3-105 (2007); DEL. CODE ANN. tit. 11, § 631 (2007); MO. ANN. STAT. § 565.024.3 (West Supp. 2008); N.Y. PENAL LAW § 125.10 (McKinney 2004).

119. See CAL. PENAL CODE § 192(b) (defining manslaughter as “the unlawful killing of a human being without malice . . . in the commission of an unlawful act, not amounting to felony; or in the commission of a lawful act which might produce death, in an unlawful manner, or without due caution and circumspection”); GA. CODE ANN. § 16-5-3(b) (stating that manslaughter is committed when “in the commission of a lawful act in an unlawful manner [a person] causes the death of another human being without any intention to do so, by the commission of a lawful act in an unlawful manner likely to cause death or great bodily harm”).

120. See People v. Hurley, 56 P.2d 978, 982 (Cal. Dist. Ct. App. 1936) (determining that “without due caution and circumspection” is the equivalent of criminal negligence); Geele v. State, 47 S.E.2d 283, 287 (Ga. 1948) (determining that criminal negligence is required to commit manslaughter).


122. See Geele, 47 S.E.2d at 287. In explaining what it meant by reckless, the court explained that “[c]riminal negligence must be such as shows an indifference to the injurious results of the negligent acts.” Id. The actor needs to have been aware of the risk that his action may cause harm to others and must have made the decision to ignore that risk. Id. While the realization of the risk is usually assessed based on what the ordinary person would or would not
ii. Criminally Negligent Homicide

The jurisdictions that have created a separate crime for criminally negligent homicide have codified their definitions of that term. Although the exact language may vary by jurisdiction, criminal negligence may occur when a person fails to perceive a substantial and unjustifiable risk that such result will occur or that such circumstance exists. The risk must be of such nature and degree that the failure to perceive it constitutes a gross deviation from the standard of care that a reasonable person would observe in the situation. This definition requires no more than ordinary negligence. The application of criminal negligence will depend on whether the actor had knowledge and was aware of the risk his actions created.

c. Recklessness

The third standard that several jurisdictions have adopted for manslaughter is when a person "recklessly causes the death of another person." Similar to the criminally negligent homicide statutes, legislatures vary in their definitions...
of recklessness, but in general, a person will be deemed to have acted recklessly when:

[H]e is aware of and consciously disregards a substantial and unjustifiable risk that the result will occur or that the circumstance exists. The risk must be of such nature and degree that disregard thereof constitutes a gross deviation from the standard of conduct that a reasonable person would observe in the situation.\[superscript 128\]

In some circumstances, recklessness can be charged as partial knowledge, or knowledge that a risk exists without knowing for certain whether the risk will materialize.\[superscript 129\] Even when an actor is aware that a result could occur, if he does not know of the circumstance that could bring about the result, he cannot be said to have acted recklessly.\[superscript 130\] The criminality is based on the awareness of the cause of a risk and the choice to disregard that risk's existence.\[superscript 131\]

3. State Standards of Punishment

The various punishments applicable to an engineer and his company include fines, loss of license, and prison sentences.\[superscript 132\] Similar to the definitions of the crimes themselves, each state has its own valuation of the punishment warranted for conviction.\[superscript 133\]

\[superscript 128\] ALA. CODE § 13A-2-2(3); see also COLO. REV. STAT. § 18-1-501(8); DEL. CODE ANN. tit. 11, § 231(c) (2007); KAN. STAT. ANN. § 21-3201(c); MO. ANN. STAT. § 562.016.4 (West 1999); N.Y. PENAL LAW § 15.05.3 (McKinney 2004); WIS. STAT. ANN. § 939.24.1 (West 2005).

\[superscript 129\] See State v. Beeler, 12 S.W.3d 294, 299 (Mo. 2000); see also State v. Gaskins, 66 S.W.3d 110, 113 (Mo. Ct. App. 2001) (explaining that even though the defendant had no intention to shoot a gun, when he got into a fight with a loaded gun in his pocket without knowing if the safety was engaged, a jury could determine he acted recklessly when the gun discharged during the fight).

\[superscript 130\] See Warner-Lambert Co., 414 N.E.2d at 665 (conceding that even though a company knew that its production process created the possibility of an explosion, when the explosion was caused by a spark that the company had not foreseen, and had not taken precautions against, it could not have acted recklessly).

\[superscript 131\] See State v. Jenkins, 39 P.3d 47, 56 (Kan. 2002) (distinguishing between a person who knew he was susceptible to suffering epileptic seizures and elected to continue driving from a person who suffered a seizure for the first time while driving). Although recklessness can be shown through a medical or other formal diagnosis, it can also be inferred from the perpetrator's actions. State v. Hill, 111 P.3d 178, 182 (Kan. Ct. App. 2005) (concluding that a driver who was repeatedly forced to bring his truck back on the road could determine that he was falling asleep at the wheel without the benefit of a diagnosis that he suffered from sleep apnea). When a person consciously disregards a known risk, his action is in direct opposition to the actions of a reasonable person who evaluates possible negative outcomes before electing to act. Sanchez v. People, 820 P.2d 1103, 1109 (Colo. 1991). Determining recklessness, however, does not always require an overt act; when a person has a duty to act, a failure to act will take the place of an overt act. State v. Williquette, 285 N.W.2d 145, 150 (Wis. 1986).

\[superscript 132\] See discussion infra Parts I.D.3.a–b.

\[superscript 133\] See discussion infra Parts I.D.3.a–b.
a. Prison Sentences and Fines

The idea that a corporation is not a legal entity capable of acting unlawfully is a notion that has been repudiated.134 Even though a corporation is now generally seen as a person when it comes to its ability to commit a crime, the punishment that may be imposed differs from that which is available to a living person.135

The Supreme Court has helped clarify the type of punishment that can be applied to a corporation.136 The Court noted in United States v. Union Supply Co. that when a statute explicitly lists imprisonment as the only punishment available for a crime, a corporation cannot be subject to punishment under the statute.137 However, when a statute presents the option of imposing either a fine, imprisonment, or both, the state has the ability to impose any punishment that is applicable.138 Using this notion, many jurisdictions have taken different approaches regarding the type and degree of punishment their crimes will mandate.139

Jurisdictions such as Colorado, Georgia, Mississippi, and Wisconsin elected to follow a path similar to the one described by the Supreme Court and created statutes that express an applicable prison sentence as well as a fine.140 Other jurisdictions such as Alabama, California, Delaware, Florida, Missouri, and New York have separated the sentence of a fine from the sentence of imprisonment, providing each with its own statutory provision.141 No matter how the statutes were drafted, each jurisdiction has provided a punishment that has the potential to attach to a corporation.142

134. See S. Ry. Co. v. State, 54 S.E. 160, 161 (Ga. 1906) (explaining that the old rule that a corporation was only created for undertaking lawful purposes and therefore could not be indicted with a crime has been abrogated).
135. See id. (indicating that although a corporation may be fined, it cannot be imprisoned).
136. See United States v. Union Supply Co., 215 U.S. 50, 54–55 (1909) (acknowledging that while a corporation may not be imprisoned, if a statute allows for a fine in addition to imprisonment, the statute may apply to the corporation).
137. See id. at 54.
138. See id. at 55.
139. See infra notes 140–67 and accompanying text.
140. See COLO. REV. STAT. § 18-1.3-401(1)(a)(I)–(III)(A) (2008); GA. CODE ANN. § 17-10-3(a)–(b) (2008); MISS. CODE ANN. § 97-3-25 (West 2005); WIS. STAT. ANN. § 939.50(3) (West 2005).
141. See ALA. CODE § 13A-5-6(a) (LexisNexis 2005); id. § 13A-5-11(a) (LexisNexis Supp. 2007); id. § 13A-6-3(a) (LexisNexis 2005); CAL. PENAL CODE § 193(a)–(c) (West. 2008); id. § 672 (West 1999); DEL. CODE ANN. tit. 11, § 4205(a)–(b); id. § 4208; FLA. STAT. ANN. § 775.082 (West Supp. 2008); id. § 775.083 (West 2005); MO. ANN. STAT. § 558.011 (West Supp. 2007); id. § 560.011 (West 1999); id. § 560.021; N.Y. PENAL LAW § 70.00 (McKinney Supp. 2008); id. § 80.00 (McKinney 2004); id. § 80.10.
142. See supra notes 140–41 and accompanying text.
In addition to deciding how to impose a fine against a corporation, state legislatures also had to determine whether the corporation would be treated like every other human person or whether it would be held to a higher standard. Even when state legislatures decide to treat individuals and corporations equally, there is no state uniformity in the maximum fine available. States such as Georgia have set the maximum fine at $1000, while states such as Delaware have not set a limit. Statutes like Delaware’s leave in the hands of the court complete discretion regarding the fine imposed. Another approach calls for no specific fine value, but imposes a penalty double the benefit or gain attained through commission of the crime.

Of the jurisdictions that allow higher fines for corporations, some go as far as allowing the maximum to be double that which may be imposed on an individual. These are also jurisdictions that consider the benefit or gain

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143. See People v. Charter Thrift & Loan, 106 Cal. Rptr. 364, 365–66 (Ct. App. 1973) (explaining that California created section 672 of its penal code to provide the legislature with the ability to transform any crimes that only listed prison sentences as punishment to crimes that also carried the penalty of a fine, making them applicable to corporations); State ex rel. Losey v. Willard, 54 So. 2d 183, 185 (Fla. 1951) (acknowledging that when the only punishment for an offense is imprisonment a corporation may not be held liable, but when a fine may also be imposed, the corporation can be made to answer for its crimes).

144. See COLO. REV. STAT. § 18-1.3-401(2)(b) (providing that corporations will be held to the same range of fines as individuals); see also ALA. CODE § 13A-5-11; CAL. PENAL CODE § 672; DEL. CODE ANN. tit. 11, § 4205(k) (allowing imposition of any fine the court deems appropriate); id. § 4208(1) (same); FLA. STAT. ANN. § 775.083.1(b); GA. CODE ANN. § 17-10-3(a)(1); MISS. CODE ANN. § 97-3-25; WIS. STAT. ANN. § 939.50.3(d).

145. Compare MO. ANN. STAT. § 560.011.1 (describing fine that may apply to an individual), and N.Y. PENAL LAW § 80.00.1 (same), with MO. ANN. STAT. § 560.021 (describing the amount of fine that can be placed on a corporation), and N.Y. PENAL LAW § 80.10.1 (describing fine that may apply to a corporation).

146. See ALA. CODE § 13A-5-11(a)(2) (allowing a fine of up to $30,000 for a manslaughter conviction); CAL. PENAL CODE § 672 (allowing a fine of up to $10,000 for a manslaughter conviction); COLO. REV. STAT. § 18-1.3-401(1)(a)(III)(A) (allowing a fine within the range of $2000 to $500,000 for a manslaughter conviction); FLA. STAT. ANN. § 775.083.1(b) (allowing a fine of up to $10,000 to be imposed for a conviction of manslaughter); MISS. CODE ANN. § 97-3-25 (calling for a minimum fine of $500 for a manslaughter conviction); WIS. STAT. ANN. § 939.50.3(d) (allowing a fine of up to $100,000 to be imposed for a conviction of manslaughter).

147. See, e.g., GA. CODE ANN. § 17-10-3(a)(1).

148. See, e.g., DEL. CODE ANN. tit. 11, § 4208(1).

149. See id.

150. See ALA. CODE § 13A-5-11(a)(4). The term "gain" is defined as "the amount of money or the value of property derived from the commission of the crime, less the amount of money or the value of property returned to the victim of the crime or seized or surrendered to lawful authority prior to the time sentence is imposed." Id. § 13A-5-11(b).

151. See MO. ANN. STAT. § 560.011.1(1) (West 1999) (allowing a $5000 fine to be imposed on an individual convicted of manslaughter); id. § 560.021.1(1) (allowing a $10,000 fine to be imposed on a corporation convicted of manslaughter); N.Y. PENAL LAW § 80.00.1(a) (McKinney 2004) (allowing a $5000 fine to be imposed on an individual convicted of manslaughter); id. § 80.10.1(a) (allowing a fine of up to $10,000 for a corporation convicted of manslaughter).
acquired in commission of the crime when setting the amount of the fine.\textsuperscript{152} Even when a fine is based on benefit or gain, it is typically capped by a statutory maximum for the specified crime.\textsuperscript{153} New York takes a slightly different approach by allowing the fine to be double the amount of the gain, even if the fine exceeds the amount listed for that specific crime.\textsuperscript{154}

Just as the amounts of fines differ from state to state, so too do the prison sentences that may be imposed.\textsuperscript{155} One of the key differences is the level at which the felony offense will be classified. Higher-level felonies tend to increase prison time.\textsuperscript{156} Beyond the difference of opinion among legislatures as to what type of crime has been committed, each jurisdiction has its own valuation of the severity of manslaughter and the punishment appropriate for conviction. Some states, like Georgia, have determined that involuntary manslaughter is no more than a misdemeanor carrying with it a maximum sentence of twelve months in prison.\textsuperscript{157} Other states, like Wisconsin, prescribe more severe prison sentences of up to twenty-five years for a similar offense.\textsuperscript{158} States like Georgia and Wisconsin represent the extreme ends of

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\item\textsuperscript{152} See MO. ANN. STAT. § 560.011.1(2); N.Y. PENAL LAW § 80.00.1(b).
\item\textsuperscript{153} See, e.g., ALA. CODE § 13A-5-11(a)(2) (capping the maximum fine for manslaughter at $30,000); MO. ANN. STAT. § 560.011.1(1) (setting a maximum fine for manslaughter at $5000).
\item\textsuperscript{154} See N.Y. PENAL LAW § 80.10.1(e).
\item\textsuperscript{155} See infra notes 156-60 and accompanying text.
\item\textsuperscript{156} See COLO. REV. STAT. § 18-3-105 (2008) (defining criminally negligent homicide as a class five felony); see also id. § 18-3-104(2) (defining manslaughter as a class four felony). In Colorado a class five felony carries with it a prison sentence of one to two years. See id. § 18-13.3-401(1)(a)(V)(A). The maximum sentence for a class five felony becomes the minimum sentence for a class-four felony, which proscribes a two-to-six-year prison sentence. See id. In Delaware, criminal negligence is categorized as a class E felony. See DEL. CODE ANN. tit. 11, § 631 (2007). Conviction for this type of felony can yield up to five years in prison. See id. § 4205(b)(5). Unlike Colorado, the Delaware legislature felt there was a greater difference between criminally negligent homicide and manslaughter, and accordingly classified manslaughter a class B felony. See id. § 632 (2007). The difference is demonstrated further by the applicable prison sentence for a conviction of a class B felony, which has a range of two to twenty-five years. See id. § 4205(b)(2). Missouri and New York provide examples of other states that have created different levels of punishment somewhere in between the negligible difference of Colorado and the extreme difference of Delaware. See MO. ANN. STAT. § 565.024.4 (West Supp. 2008) (labeling involuntary manslaughter by criminal negligence as a class D felony); id. § 565.024.2 (labeling involuntary manslaughter committed recklessly as a class C felony); id. § 558.011.1(4) (imposing a possible prison sentence of up to four years for a class D felony); id. § 558.011.1(3) (imposing a possible prison sentence of up to seven years for a class C felony); N.Y. PENAL LAW § 125.10 (classifying criminally negligent homicide as a class E felony); id. § 125.15 (classifying manslaughter as a class C felony); id. § 70.00.2(e) (McKinney Supp. 2008) (calling for a prison sentence of up to four years for conviction of a class E felony); id. § 70.00.2(c) (calling for a prison sentence of up to fifteen years for the conviction of a class C felony).
\item\textsuperscript{157} See GA. CODE ANN. § 16-5-3(b) (2007).
\item\textsuperscript{158} See WIS. STAT. ANN. § 939.50.3(d) (West 2005); see also, e.g., ALA. CODE § 13A-5-6(a)(2) (LexisNexis 2005) (providing a prison sentence of two to twenty years for a manslaughter conviction); DEL. CODE ANN. tit. 11, § 4205(b)(2) (imposing a prison sentence of two to twenty-
the spectrum.\textsuperscript{159} Prison sentences in other jurisdictions tend to fall somewhere in the middle, ranging anywhere from two to fifteen years.\textsuperscript{160}

\textbf{b. Loss of License}

Another punishment that may be applied is the loss of a professional license. The issuance of a license is a privilege a state bestows on individuals; thus, it is one that the state may also revoke.\textsuperscript{161} Many states leave licensing determinations in the hands of the state licensing board.\textsuperscript{162} These boards are equipped with a number of options to deal with complaints aimed at the engineering profession, and ultimately, a board may choose to revoke an engineer’s license altogether.\textsuperscript{163} The acts or omissions that can invoke board punishment include those of “gross negligence, incompetency, or unprofessional conduct,”\textsuperscript{164} as well as the commission and conviction of a crime\textsuperscript{165} while undertaking the work and the duties of a professional engineer.

It may seem logical that revocation of a license would be a permanent ban; however, some states have proceedings whereby an individual may seek reinstatement of a license.\textsuperscript{166} In California, although it is typical for a period of at least three years to pass before reinstatement will even be considered, it is nonetheless within the board’s discretion to allow a shorter time period of only one year.\textsuperscript{167}

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\item five years for a manslaughter conviction); MISS. CODE ANN. § 97-3-25 (West 2005) (imposing a prison sentence ranging from two to twenty years for a manslaughter conviction).
\item \textsuperscript{159} GA. CODE ANN. § 16-5-3; WIS. STAT. ANN. § 939.50.3(d).
\item \textsuperscript{160} See, e.g., CAL. PENAL CODE § 193(b) (West 2008) (imposing a prison sentence of two to four years for a manslaughter conviction); COLO. REV. STAT. § 18-1.3-401(1)(a)(V)(A) (listing a two-to-six-year prison sentence for a manslaughter conviction); FLA. STAT. ANN. § 775.082.3(c) (West Supp. 2008) (imposing a maximum fifteen year prison sentence for conviction of a second degree felony such as manslaughter); MO. ANN. STAT. § 558.011.1(3) (listing a prison sentence of up to seven years for a manslaughter conviction); N.Y. PENAL LAW § 70.00.2(c) (listing a prison sentence of up to fifteen years for a manslaughter conviction).
\item \textsuperscript{161} See Helvering v. Mitchell, 303 U.S. 391, 399 (1938).
\item \textsuperscript{162} See, e.g., ALA. CODE § 34-11-11(a) (LexisNexis 2007) (stating that the board has the power to affect the status of all licenses); CAL. BUS. & PROF. CODE § 6775 (West Supp. 2008) (granting the board the ability to “investigate complaints . . . and make findings”); see also COLO. REV. STAT. § 12-25-108(1) (2007); GA. CODE ANN. § 43-15-19(a) (2005).
\item \textsuperscript{163} See ALA. CODE § 34-11-11(a) (other potential penalties include “reprimand, censure, place[ment] on probation, or [imposition of a] fine”).
\item \textsuperscript{164} GA. CODE ANN. § 43-15-19(a)(2).
\item \textsuperscript{165} See GA. CODE ANN. § 43-15-19(4) (explaining that conviction may “include a finding or verdict of guilt, a plea of guilty, or a plea of nolo contendere in a criminal proceeding regardless of whether the adjudication of guilt or sentence is withheld or not entered thereon”); see also CAL. BUS. & PROF. CODE § 6775(a); COLO. REV. STAT. § 12-25-108(1)(c).
\item \textsuperscript{166} See CAL. BUS. & PROF. CODE § 6780(a).
\item \textsuperscript{167} See id. § 6780(a)(1). Although reinstatement is permitted, the board may impose other terms and conditions on the individual that it deems necessary prior to re-issuing a license. Id. § 6780(d). In the event revocation resulted from a criminal sentence, no petition for reinstatement is permitted while the individual is serving that criminal sentence. Id. § 6780(e).
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II. DETERMINING THE APPROPRIATE PARTIES, ACTIONS CREATING LIABILITY, AND THE PUNISHMENT THAT SHOULD ATTACH

A. Who Should be Held Responsible

To achieve a maximum level of deterrence, criminal liability should be imposed on: the design engineer; a higher-ranking corporate officer, if applicable; and the corporation itself. That individuals may be held criminally liable will make them less likely to risk a potential jail sentence for the sake of making the corporation extra profit, especially when the criminal charges cannot be covered by indemnification or through insurance. If individual liability is also combined with corporate liability, the corporation is prevented from allowing the individual to take the fall while it reaps a benefit from the illegal act or omission.

An engineer’s individual liability may come from his failure to create designs that will put the “safety, health, and welfare of the public” first in violation of his stated duty. By affixing his seal to a set of plans, an engineer asserts either that he performed the work himself, or thoroughly reviewed the work of another. To do so under any other circumstance constitutes unprofessional conduct. Failing to give the proper attention to his own work or his supervision of another’s work violates the engineer’s duty of safety to the public, endangers lives, and exposes him to criminal liability.

A corporate officer’s liability can be based on one of two roles he may have played in an act or omission. First, he could have actually participated in the

169. See supra notes 99–102 and accompanying text.
170. See supra notes 92–95 and accompanying text.
171. Developments in the Law, supra note 31, at 1245.
172. Id. at 1253.
173. NSPE, supra note 7, § I(1); see also supra Part I.C.1.
175. Id. (describing types of conduct that will be considered unprofessional if engaged in by an engineer).
176. NSPE, supra note 7, § I(1).
177. See Duncan v. Md. Bd. for Architects, Prof’l Eng’rs and Land Surveyors, 744 S.W.2d 524, 528 (Mo. Ct. App. 1988). In Duncan, the licensed engineer failed to review the work of a junior engineer working under him, yet approved the work by affixing his seal. Id. The flawed design caused 142,000 pounds of hotel walkways to crash to the floor, killing one hundred and fourteen people and injuring many more. Id. at 527.
178. See SAMUELS, supra note 4, at 123.
179. See Otis v. Super. Ct. of Los Angeles County, 82 P. 853, 854 (Cal. 1905) (explaining that in order to charge an officer with criminal liability he needs to have been in control of the act or have been in control of those performing the act and must have permitted them to undertake the act).
criminal act, as is the case when he is the design engineer. The second, through his placement in a supervisory role, he may have knowledge and control over the situation and choose either to support the act or fail to prevent it. The very nature of a supervisory position calls on the individual to have knowledge of the problem and to exercise the necessary control to prevent it. That the corporate officer is aware of the problem and has done nothing to prevent it functions as an approval of the action. Alternately, if the supervisor is unaware of what is occurring, he has failed to fulfill his job requirements by inadequately supervising and controlling his subordinates. The corporation may be liable for its acceptance of the reckless design, its failure to prevent it, or simply through the acts of its agents. Provided that the agents remain within the limits of their authority, their actions on the corporation's behalf are imputed as the actions of the corporation.

B. The Case for Why Criminal Liability Is Necessary and the Standard that Calls for Its Application

Based on the statutes of repose of various jurisdictions, and depending on when the harm occurred, a criminal action may be the only claim that can be brought against the perpetrator. Even in the instances where a civil action would be permitted, bringing criminal charges along with a wrongful death suit would not be a constitutional violation of the double jeopardy clause, and would promote deterrence by replacing the sting removed by insurance.

In terms of what standard of conduct calls for bringing criminal charges, there are three different versions of manslaughter statutes. Despite the use of different language, each state will attach criminal liability based on conduct

180. See supra notes 173–78 and accompanying text.
181. See Sea Horse Ranch v. Super. Ct. of San Mateo County, 20 Cal. Rptr. 2d 681, 688–89 (Ct. App. 1994) (holding that when a corporate president who knew of a potential risk and had the authority to prevent it failed to prevent the risk, it was permissible to charge him with involuntary manslaughter based on the corporation's crime).
182. See Overland Cotton Mill Co. v. People, 75 P. 924, 926 (Colo. 1904) (advancing that an agent of a corporation, in performing his job, should know or should be able to determine whether he or those under his control were engaging in illegal activity).
183. See People v. Conway, 117 Cal. Rptr. 251, 258 (Ct. App. 1974) (concluding that an officer, who was repeatedly given knowledge of illegal activity and did nothing to remedy it, was essentially allowing the illegal activity).
184. See State ex rel. Kropf v. Gilbert, 251 N.W. 478, 485 (Wis. 1933) (finding that when an officer's failure to manage or control subordinates caused him to be unaware of liability that failure was the equivalent of support).
185. See N.Y. PENAL LAW § 20.20.2 (McKinney 2004); see also DEL. CODE ANN. tit. 11, § 281 (2007). A corporation is not able to act on its own behalf; it must act through the actions and omissions of its agents. Overland Cotton Mill Co., 75 P. at 926.
186. See Overland Cotton Mill Co., 75 P. at 926.
187. See supra notes 51–67 and accompanying text.
188. See supra notes 68–69 and accompanying text.
189. See supra Part I.B.1.
that amounts to recklessness. The key requirement from each definition of culpability is the awareness of a risk. The awareness and creation of this risk imposes a duty to prevent people from being harmed by it, and the failure to perform this duty creates criminal liability.

C. What Punishment May Be Imposed?

A corporation is considered an artificial entity and this classification prevents it from being sentenced to imprisonment. As a result, when a corporation is found criminally liable, the only punishment the corporation itself may face is a fine.

States have accepted the idea that the only punishment a corporation will face is the imposition of a fine and have amended their statutes accordingly to ensure that punishment is available. Despite this fact, jurisdictional uniformity in fine amounts does not exist. States like Georgia impose relatively small limits, while states like Delaware leave the fine limit open and in the hands of the court.

To act as a proper deterrent, fines must be expressed in such a way that a person or a corporation will see no benefit in undertaking the criminal conduct. Delaware’s statutes allow for the imposition of a fine that has the potential to create a large financial burden. Despite the possibility of a larger fine, a corporation may find that an open-ended fine range may provide

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190. See supra Part I.D.2.
191. See supra notes 114, 121, 128 and accompanying text.
192. See JOSHUA DRESSLER, CASES AND MATERIALS ON CRIMINAL LAW 132 (3d ed. 1999) (explaining that when a risk is created that places another in harm’s way, a duty is created to prevent that harm from happening).
193. Id.
195. See United States v. Union Supply Co., 215 U.S. 50, 54–55 (1909) (explaining that when a statute only lists imprisonment as the acceptable sentence, that sentence will be inapplicable to a corporation, but if the ability to impose a fine exists, the corporation may be punished).
196. See supra notes 136–42 and accompanying text.
198. See DEL. CODE ANN. tit. 11, § 4205(k) (2007); id. § 4208(1).
199. See Developments in the Law, supra note 31, at 1366–67. When fines are smaller than the profit the corporation will receive for the criminal conduct, there is no real deterrent effect. See Bruce Coleman, Is Corporate Criminal Liability Really Necessary?, 29 Sw. L.J. 908, 925 (1975).
200. See DEL. CODE ANN. tit. 11, § 4205(k) (permitting the fine imposed on a person to be left to the discretion of the court); id. § 4208(1) (permitting the fine imposed on an organization to be left to the discretion of the court).
it with a lesser penalty. Alternatively, a small fine, or even one based on doubling the profit gained by the act, may not act as a sufficient deterrent.

Colorado's statute is a good step toward the appropriate level of deterrence. Colorado fails to address situations where extreme amounts of profit are made through illegal conduct, but its fine range of $2000 to $500,000 will force most parties to reevaluate the potential cost of their criminal conduct. By combining Colorado's fine range with the idea of allowing the fine to be double the gain created by the criminal conduct, as espoused by other states, an even broader range of fines is created that can act as a deterrent for all.

When discussing the appropriate statutory fine, arguments have been made that it would be more effective to leave this matter to civil claims. However, this argument fails to consider the role of insurance in the payment of damages, and the statutes of repose that may bar civil claims all together. With the ability to achieve the desired level of protection for the right price, combined with the option of retaining insurance until the expiration of statutory periods, the deterrent effect of civil liability is significantly weakened. Thus, criminal liability with out-of-pocket expenses is the necessary level of deterrence.

While the fear of being held criminally responsible for a fine will help deter a corporation from producing flawed designs, combining this criminal responsibility with individual liability for officers and agents will yield even better results. If liability is attached to a corporation through its officers or.

201. GA. CODE ANN. § 17-10-3(a)(1) (allowing for the imposition of a $1000 fine). When a fine is small it acts as little more than a "fee[] for licenses to engage in illegal activities." Developments in the Law, supra note 31, at 1366.

202. See N.Y. PENAL LAW § 80.10.1(e) (McKinney 2004). For example, a construction job may have a profit margin of only 1–5% of the cost of the entire project. Aberdeen Group, Inc., Architecture, Engineering, and Construction Project Portfolio Management: End-User Survey Results 1–2 (2004) (on file with the Catholic University Law Review).

203. See COLO. REV. STAT. § 18-1.3-401(1)(a)(III)(A) (2008) (listing fine ranges that go as high as $500,000).

204. See id.

205. See, e.g., ALA. CODE § 13A-5-11(a)(4) (LexisNexis Supp. 2007); MO. ANN. STAT. § 560.011.1(1)–(2) (West 1999); MO. ANN. STAT. § 560.021.1(6); N.Y. PENAL LAW § 80.00.1(a)–(b); N.Y. PENAL LAW § 80.10.1(a), (e).


207. See Morgenstern, supra note 88, at 53 (stating that when the parties discussed the damages resulting from added construction due to the flawed design, the amount settled on was the amount the design engineer's insurance company was going to pay).

208. See supra note 54 and accompanying text.

209. See Neeson, supra note 42, at 42.

210. See SAMUELS, supra note 4, at 80 (discussing the different types of insurance policies used in the construction industry).
agents, then by imposing personal liability on the officer or agent, liability may also be imposed on the corporation. When an officer or agent's conduct may force him to serve prison time, his desire to risk his own personal freedom for the sake of profiting the corporation will be exponentially decreased. Personal liability will impose a duty on an officer to vigorously keep track of the actions of his subordinates so that he can ensure that the subordinates are acting with his approval. Criminal liability will cause a corporation to keep a more watchful eye on its officers and agents, who in turn will engage in more conscientious supervision of their subordinates, thereby passing added safety on to the public.

It would seem that the best way to protect the public would be to revoke the practitioner's license, thereby preventing the individual from working in the field and inspiring him to practice his craft diligently. Even when an engineer's license is revoked, the nature of the industry would not prevent the individual from working, because non-licensed engineers undertake engineering designs every day. The ability to continue practicing could be even more prevalent in a corporation where the effect of losing one engineer's license could be easily overcome as long as another engineer on staff was licensed and willing to approve the design work. Additionally, depending on the jurisdiction, it may be possible for an engineer to petition to have his license reinstated.

211. See Overland Cotton Mill Co. v. People, 75 P. 924, 926 (Colo. 1904) (articulating that a corporation can only act through its agents and requiring that liability based on their actions be attached to the corporation).

212. See Otis v. Super. Ct. of Los Angeles County, 82 P. 853, 854 (Cal. 1905) (holding that an officer or agent who directly participated in the act or omission, or who had knowledge and control over those responsible, will be liable himself).

213. See Developments in the Law, supra note 3, at 1245 (explaining that when fines are the only available punishment, the availability of insurance and indemnification provided by the corporation will not deter the employee from striving to maximize corporate profits).

214. See State ex rel. Kropf v. Gilbert, 251 N.W. 478, 485 (Wis. 1933) (explaining that when an officer or agent's responsibilities include the management and control over subordinates, being unaware of their actions creates liability for the superior just as if the subordinate had been given the superior's approval).

215. See supra note 84 and accompanying text.

216. See State Bd. of Registration for Prof'l Eng'rs v. Rogers, 120 So. 2d 772, 775 (Miss. 1960) (explaining that an engineer can delegate work to others but liability remains with him upon his seal of approval).

217. See, e.g., CAL. BUS. & PROF. CODE § 6780(a) (West Supp. 2008).
III. MODIFYING CRIMINAL STATUTES TO MAXIMIZE DETERRENCE AND PUBLIC WELFARE

The combination of insurance and statutes of repose can dramatically lessen the sting felt by engineers and engineering companies that are held responsible for reckless designs. By imposing criminal liability on these groups, they will be forced to look beyond a cost-benefit analysis of potential risk, and will be encouraged to protect themselves, and derivatively, the public-at-large.

To ensure that the appropriate parties are held responsible, a manslaughter statute should be drafted as follows:

- (1) A person commits manslaughter through the killing of another person through a reckless act or omission. For the purposes of this statute a person shall include any living person or corporate entity.

- (2) An act or omission is committed in a reckless manner when the actor is aware of a substantial and unjustifiable risk and consciously disregards its existence or is indifferent to the potential result.

- (3) A substantial and unjustifiable risk is one where, when it is disregarded, it becomes a gross deviation from the standard a reasonable person would abide by; in the event that the actor has special knowledge of the situation, the reasonable person will be considered a reasonable person with similar special knowledge.

- (4) On conviction of the charge of manslaughter, a person shall be sentenced to a term not exceeding seven years imprisonment, in addition to or in lieu of a fine within the range of $2000 to $500,000, or up to double the gain made through the act.

- (5) The applicable fines that may be imposed in addition to or in lieu of imprisonment are the same range of fines that are to be imposed on a corporation.

- (6) The term "gain" means the amount of money or the value of property derived from the commission of the crime, less the amount

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218. See supra Part I.B.1.
220. See Anderson, supra note 8, at 413 (explaining that when jail sentences are considered a part of the cost-benefit analysis, a company may no longer look at the situation as a purely monetary decision).
221. See, e.g., ALA. CODE § 13A-2-2(3) (LexisNexis 2005); COLO. REV. STAT. § 18-1-501(8) (2008); MO. ANN. STAT. § 562.016.4 (West 1999); N.Y. PENAL LAW § 15.05.3 (McKinney 2004).
222. See ALA. CODE § 13A-2-2(3); COLO. REV. STAT. § 18-1-501(8); MO. ANN. STAT. § 562.016.4; N.Y. PENAL LAW § 15.05.3.
224. See, e.g., COLO. REV. STAT. § 18-1.3-401(1)(a)(III)(A).
225. See, e.g., N.Y. PENAL LAW § 80.00.1(b).
226. See, e.g., COLO. REV. STAT. § 18-1.3-401(1)(a)(III)(A).
of money or the value of property returned to the victim of the crime or seized or surrendered to lawful authority prior to the time sentence is imposed.\textsuperscript{227}

A statute with this language clearly articulates that both individuals and corporations may be held responsible, what conduct will make them responsible, and what punishment may result. The culpability requirement of recklessness is in line with other jurisdictions' statutes,\textsuperscript{228} and focuses on the fact that the actor is aware of the danger he is creating, and has elected to continue his conduct or has refused to rectify the situation.\textsuperscript{229}

The range of prison sentences and fines would take into account that even though the act or omission was reckless, it was not the actor's intent that someone should die.\textsuperscript{230} If an officer or agent knows that criminal liability could attach and lead to up to seven years in prison, there will be even more incentive for him to fulfill his duties.\textsuperscript{231} Additionally, a clear range of fines in combination with a catchall provision for violations that create immense profits\textsuperscript{232} allows both an individual and a corporation to evaluate the potential cost of their actions\textsuperscript{233} in a way that many current statutes fail to do.\textsuperscript{234}

There is an argument that imposing a large fine on a corporation causes innocent stockholders to suffer for criminal conduct that they themselves did not undertake and that they had no control over.\textsuperscript{235} While the imposition of a criminal fine may have a negative effect on corporate stockholders, it is no greater than the effect of the various civil penalties that a corporation may

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\textsuperscript{227} See ALA. CODE § 13A-5-11(b) (LexisNexis Supp. 2007).

\textsuperscript{228} See supra Part II.B.

\textsuperscript{229} See supra note 130 and accompanying text.

\textsuperscript{230} See State v. Beeler, 12 S.W.3d 294, 299 (Mo. 2000).

\textsuperscript{231} See Developments in the Law, supra note 31, at 1245.

\textsuperscript{232} Profit margins on construction work typically fall between 1–5% of the total construction cost; when dealing with a large project, this small percentage can still yield a very large profit. See ABERDEEN GROUP, INC., supra note 202, at 1–2. Even using a profit margin of only 1%, when working on a project like the “Big Dig,” which had a final project cost of $14,000,000,000, the designer would make $140,000,000 in profit. NTSB, supra note 5, at 15.

\textsuperscript{233} See Developments in the Law, supra note 31, at 1366; see also supra note 200 and accompanying text.

\textsuperscript{234} See Coleman, supra note 199, at 925 (expressing that if the cost of a fine is less than the derived benefit, the fine acts merely as a fee for undertaking illegal conduct); see also ALA. CODE § 13A-5-11(a)(2) (LexisNexis Supp. 2007) (allowing for a fine of up to $30,000); CAL. PENAL CODE § 672 (West 1999) (allowing a fine of up to $10,000); FLA. STAT. ANN. § 775.083.1(b) (West 2005) (allowing for a fine of up to $10,000); GA. CODE ANN. § 17-10-3(a)(1) (Supp. 2007) (providing a $1000 fine); MO. ANN. STAT. § 560.011.1(1) (West 1999) (allowing a fine of up to $5000 for an individual); id. § 560.021.1(1) (allowing a fine of up to $10,000 for a corporation); N.Y. PENAL LAW § 80.00.1(a) (McKinney 2004) (allowing a fine of up to $5000 for an individual); id. § 80.10.1(a), (e) (allowing a fine for up to $10,000 or double the gain for a corporation); WIS. STAT. ANN. § 939.50.3(d) (West 2005) (allowing a fine of up to $100,000).

already face.236 In addition, a corporation is typically in the best position to address and prevent the harm from occurring in the first place.237 A corporation’s position as the entity best able to prevent the harm, coupled with the societal interest in public safety, trumps the stockholders’ concerns about reduced profitability.238 Stricter punishments for all parties involved in reckless design and construction cases will motivate all who are involved to adhere to the duties of the industry.239

IV. CONCLUSION

Current involuntary manslaughter statutes create the opportunity for an engineering corporation to be assessed a minor fine,240 while allowing an engineer or officer to face prison time.241 By adopting a statute that maintains a potential prison sentence for officers and engineers who fail to do their duties,242 as well as imposing harsher fines on corporations,243 a level of deterrence is created that is not possible through civil damages alone.244 Both corporations and individuals must be held directly responsible for their criminal conduct in order to prevent recklessly flawed designs from entering public use.

236. Id. Society has accepted that innocent stockholders must face the penalties imposed on their corporations with regard to civil matters. See id. Because the punishment the stockholder will suffer based on criminal action is the same as that stemming from a civil action, stockholders should consider both forms of punishment acceptable. See id.

237. See James D. Cox, Private Litigation and the Deterrence of Corporate Misconduct, 60 LAW & CONTEMP. PROBS. 1, 9 (Autumn 1997) (explaining that a corporation can better determine the burdens and benefits that will result from its actions).

238. See Edgerton, supra note 235, at 837.

239. See NSPE, supra note 7, at § I(1).


241. See, e.g., CAL. PENAL CODE § 193(b) (West Supp. 2008) (providing for two to four years of prison time).

242. See supra notes 183–85 and accompanying text.

243. See Coleman, supra note 199, at 925 (explaining that small fines can be seen as a license fee allowing criminal conduct).

244. See supra Part I.B.1.