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Efficacy of the United States Safe Harbor Framework

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EFFICACY OF THE UNITED STATES SAFE HARBOR FRAMEWORK

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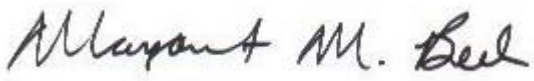
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF MASTER OF SCIENCE IN

DATABASE TECHNOLOGIES

BY



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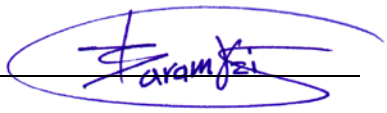

Stamos Karamouzis

Abstract

This study assessed the efficacy of the United States Safe Harbor Framework by approximating the size of a population of large United States organizations (50,000 - 500,000 employees) that were eligible to participate in the Safe Harbor that did not participate. The Safe Harbor Framework, administered by the United States Department of Commerce, is a voluntary program that assists United States organizations in complying with the European Union Data Privacy Directive. Out of a population of 337 large organizations, 168 were potentially eligible to participate in the Safe Harbor Framework. One hundred and ten, or 66%, of these organizations did not participate. The lowest rate of participation regionally was among organizations located in the South, with 82.69% of all organizations in this region not participating; and among organizations in the Accommodations and Food Services industry sector where 90% of organizations did not participate in the Safe Harbor Framework.

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Table of Contents

List of Figures

List of Tables

Chapter 1 – Introduction

The goal of this study is to measure the efficacy of the United States Safe Harbor Framework (the Framework). The Framework is a program created by the Department of Commerce to help United States (US) organizations comply with the European Directive on Data Protection (The Directive). The Directive requires any country that transacts personally identifiable data with the European Union (EU) to provide privacy protections for that data. When the Directive was enacted in 1998, it threatened to disrupt trade between the EU and US because, From the EU perspective, US laws related to data privacy protection were inadequate. Where the EU views privacy as a fundamental human right, and protects privacy through a comprehensive set of laws, US laws related to privacy tend to be specific to certain industries or sectors of business, leaving gaps in the legal protections available to individuals. Also, the US relies on self-regulatory mechanisms far more than the EU. Indeed, the Framework is consistent with a self-regulatory approach because organizations' participation in the program is voluntary. The Framework does not impose sanctions on those organizations that do not participate. Given that the EU is the US's largest trading partner, accounting for 12% of all imports, and 19.1% of all exports (European Commission Trade, 2010), the possible disruption of trade was cause for concern. Recognizing the importance of preventing a disruption of trade between the two countries due to differing data privacy regulations, the US Department of Commerce developed the Framework and it was approved by the European Union in July of 2000.The effectiveness of the Framework relies on organizations to 'opt in.,' in other words to choose to participate in the program. Once an organization opts in, it is added to a database of Safe Harbor participants and this database is available to the public on the United States Department of Commerce's Web site.

More importantly, the organization agrees to abide by a complaint handling process administered by the Framework and enforced by the Federal Trade Commission (FTC).

Numerous studies have been critical of the Framework (Kobrin, 2004; Barnes, 2006; Connolly, 2008), finding that the number of organizations participating in the program is low, and that participating organizations do not meet or maintain the requirements for self-certification. In a report by the Commission of the European Communities (Commission of the European Communities, 2004) that assessed the implementation of the Framework, the authors expressed disappointed at the low rate of participation, and suggested that future reports might look more closely at rates of participation, for instance by industry sector, in order to provide recommendations to the Department of Commerce to improve the program.

This study focuses on the rate of participation of the largest US organizations, measured by number of employees. Opting in to the program is an all important first step that demonstrates an organization is aware of the Directive. Also it brings transparency and uniformity to the actions that these organizations take to comply with the Directive. This study will measure the efficacy of the Framework by approximating the size of a population of eligible organizations that do not participate.

The European Directive on Data Protection

When the Directive went into effect in 1998, it mandated that “Member States shall protect the fundamental rights and freedoms of natural persons, and in particular their right to privacy with respect to the processing of personal data” (European Parliament, 1995). “Personal data” was defined as “any information relating to an identified or identifiable natural person” (European Parliament, 1995) and “processing of personal data” was defined as “any operation or

set of operations which is performed upon personal data, whether or not by automatic means" (European Parliament, 1995). Furthermore, Article 25 of the Directive addressed itself to the transfer of personal data to countries outside the EU and stipulated that "Member States shall provide that the transfer to a third country of personal data which are undergoing processing or are intended for processing after transfer may take place only if … the third country in question provides an adequate level of protection." (European Parliament, 1995). Due to differences in the way the United States and the European Union approach privacy protection, the European Union found that the United State's level of protection was inadequate (Reidenberg, 2000; George et al., 2001).

Differences Between the US and EU Approaches to Privacy and Data Protection

While the US has a number of sectoral or industry specific laws, it does not have a comprehensive law equivalent to the EU's. Those who have studied the differences describe the US approach as self-regulatory (George, 2001; Spinello, 2006), sectoral (George et al., 2001), market-dominated (Reidenberg, 2000); reactive and issue-specific (Kobrin, 2004); "tort-based and market oriented rather than legislative and regulatory: a 'patchwork' of rules that deal with specific sectors and problems in a haphazard manner" (Kobrin, 2004); highly reactive and unsystematic (Spinello, 2006); an "ad hoc and fragmented approach rather than a coherent body of privacy regulation predicated on a set of privacy principles" (Spinello, 2006). The European Union, on the other hand, considers data privacy protection to be a fundamental right (Reidenberg, 2000; George et al., 2001; Kobrin, 2004; Spinello, 2006). This right is protected by the state through a comprehensive body of laws and enforced through regulatory agencies (Reidenberg, 2000; Kobrin, 2004)

The fact that the EU determined that the US level of protection of personal data was inadequate threatened to disrupt or even halt transfers of data between the United States and European Union (Reidenberg, 2000; George et al., 2001; Barnes, 2006).

The US Safe Harbor Framework

Recognizing the importance of preventing a disruption of trade between the two countries due to differing data privacy regulations, the US Department of Commerce developed the Framework and it was approved by the European Union in July of 2000. The Framework sets forth guidelines by which US organizations can achieve and attest to voluntary compliance with the Directive. To date, there are over 2000 organizations throughout the US on the Department of Commerce's list of organizations that have self-certified as complying with the Directive. The Framework uses a self-regulatory approach in that participation in the program is voluntary. However, once organizations join the program, the FTC is responsible for enforcement. Only those organizations that fall under the FTC's jurisdiction are eligible to participate. This excludes telecommunications common carriers, meat packers, banks, insurance companies, credit unions or not-for-profits. If a participating organization makes false statements regarding their compliance, the FTC may prosecute them under the False Statements Act. However, the FTC does not verify or audit information provided by organizations. Organizations that participate in the BBB EU Safe Harbor program or in the TRUSTe EU Safe Harbor program are considered by the Department of Commerce to be compliant with the Framework.

This study will address the following research questions:

Of the largest US employers, how many are eligible to participate in the Framework?

Of the largest eligible US employers, how many participate in the Framework?

Chapter 2 – Review of Literature and Research

As previously noted, the US and EU have different approaches to the regulation of privacy in cyberspace and the clash of these approaches prompted the US to create the Framework to harmonize these differences. The fact that the Directive attempts to regulate the transfer of electronic data beyond EU borders raises questions about the application of jurisdiction in cyberspace. This is perhaps the central problem that the Framework attempts to address: how to honor EU law, in this instance, while insisting on the geopolitical boundaries of that law. The first part of this literature review discusses the work of authors who have contributed to the topic of jurisdiction as it relates to cyberspace.

The second part of this review considers the broader topic of regulation in cyberspace in order to understand how the Framework fits into a larger regulatory landscape. The Framework is a regulatory mechanism intended to address a regulatory gap, and it exists in the context of other regulatory mechanisms, most notably laws. Part 2 first illuminates the debate over the adequacy of the existing legal system to deal with cyberspace. Since most authors find the legal system lacking when it comes to cyberspace, the discussion moves into a brief survey of regulatory models, as these models suggest the need to augment laws with other regulatory strategies. Finally, I use these models to classify the Framework in terms of the larger regulatory landscape.

Jurisdiction in Cyberspace

Researchers disagree over the extent to which cyberspace challenges the notion of jurisdiction. Goldsmith (1998) rejects the idea that the Internet is a special case that requires a tailored set of laws. He contends instead that the Internet is merely another example of a

phenomenon that is difficult, though not impossible, to regulate across geographical borders. "The Internet is not, as many suggest, a separate place, removed from our world. Like the telephone, the telegraph, and the smoke signal, the Internet is a medium through which people in real space in one jurisdiction communicate with people in real space in another jurisdiction." (p. 476). He argues that like other entities that are difficult to contain within territorial jurisdictions, for example pollution, Internet transactions can be regulated based on "local effects" and they are subject to the laws in the jurisdictions where these effects occur. The way the effects come about, in this case a polluting factory or the Internet, is not relevant. He concedes that existing laws, while applicable, may not be effective. He notes "in non-Internet cases the extraterritorial source of local harm is frequently a firm with some local presence (property, employees, business contracts) against which the local regulating jurisdiction can assert leverage in trying to alter extraterritorial behavior." (p. 480). With the Internet, however, extraterritorial originators of transactions that cause harmful local effects may have no local presence because they are individuals.

Johnson and Post (1996) disagree fundamentally with Goldsmith's assessment that existing jurisdictional laws apply to cyberspace. Rather "Global computer-based communications cut across territorial borders, creating a new realm of human activity and undermining the feasibility – and legitimacy – of laws based on geographic boundaries." (p. 1367) They explain that on the Internet, it is often difficult or impossible to know the physical location from which transactions originate, and that "there is no necessary connection between an Internet address and a physical jurisdiction" (p. 1371). They dispute Goldsmith's argument that actions in cyberspace can be regulated based on local effects. "Usenet discussions, to take another example, consist of continuously changing collections of messages that are routed from

one network to another with no centralized location at all. They exist, in effect, everywhere, nowhere in particular, and only on the Net." (p. 1375) For this reason, they espouse treating cyberspace as a separate place, requiring its own laws. They also see a role for self-regulation, with members of cyberspace communities creating rules and control mechanisms.

Lessig (1999b) finds fault and merit in both these extremes. While he agrees with Post and Johnson that cyberspace is "something new" (p. 193), "it is not a difference in kind, only a difference in degree" (p. 193). And while he agrees with Goldsmith that there have always been entities that are difficult to regulate across borders, he argues that "We have not had a time when we could say that people are actually living in two places at once, with no principle of supremacy between them." (p. 193). He concludes that the problem with existing laws is that they were designed to address conflicts between institutions, businesses and governments, rather than disputes between individuals.

Like Lessig, Berman (2002) finds a middle ground between Johnson and Post's position and Goldsmith's. He rejects Johnson and Post's assertion that geographical jurisdiction cannot be used to regulate the Internet, and he rejects Goldsmith's position that current laws can, without modification, be applied to the Internet. For Berman, the Internet acts as a catalyst to examine and challenge the conventional definition of jurisdiction. He maintains that legal jurisdiction "both reflects and reinforces social conceptions of space, distance, and identity" (p. 3) and points out that "Online communities (to the extent that we are willing to call them communities) ignore territoriality altogether and instead are organized around shared interests." (p. 429) Berman calls this more elastic definition of jurisdiction "a cosmopolitan pluralist conception of jurisdiction" (p.322). Kobrin (2004) agrees that the concept of territoriality in the definition of jurisdiction becomes problematic in light of the Internet. "The 'space' in which a solution to the [European]

data privacy dispute will be found, however, is fundamentally relational and non-geographic. It is a ‘space of flows’ rather than a ‘space of spaces’.” (p. 129)

How to Regulate Cyberspace

In his seminal talk, *Cyberspace and the Law of the Horse*, Easterbrook (1996) challenges the notion that there is a need for a subspecialty of law for cyberspace. He criticizes proponents of cyberlaw on the grounds that they, like would-be proponents of a body of law especially related to horses, make the mistake of studying specific applications of laws, rather than studying and understanding the general principles of laws. As an example, Easterbrook, points out that one might study every case involving a person being kicked by a horse, but one would not glean from this a complete understanding of tort law. It is, in summary, a criticism of taking a bottom up approach to the study of law rather than a top down approach.

Easterbrook moves from this assertion into a discussion of property law. He points out the ways in which new technology, like the Gutenberg press and the photocopier, complicated the enforcement of copyright laws. Despite this, he says that “most behavior in cyberspace is easy to classify under current property principles” (p. 210). At the same time, he admits that the law has shortcomings in dealing with these new situations brought about by new technologies. To remedy these shortcomings he recommends a three-pronged approach. First, “make rules clearer,” (p. 210) meaning make laws pertaining to property rights more clear. Second, create new property rights where they do not exist but are needed, and third create bargaining institutions. As an example of a bargaining institution, he suggests a technological constraint whereby an online document would negotiate level of access with a requesting party, analogous to encryption technology.

In an often-cited response to Easterbrook's talk, Lessig (1999a) defends the viewpoint that it is important to consider how laws function, or fail to function, in cyberspace. While he does not advocate creating a body of law specifically for cyberspace, Lessig suggests the difficulty of regulating behavior in cyberspace calls for new regulatory designs, of which the law is one part. He uses two examples to illuminate the particular difficulties of controlling behavior in cyberspace: zoning speech and protected privacy. The zoning speech example considers the difference between controlling children's access to pornography in real space vs. cyberspace. In real space, age is self-authenticating since the vendor of pornography in a brick and mortar store would be able to use certain physical characteristics, such as height, to determine the age of the customer. In cyberspace, these physical characteristics are not apparent. In the protected privacy example, Lessig considers the difference between tracking shopping behaviors in real vs. cyberspace. In a brick and mortar store, one would most likely be able to detect if a store employee was following customers and recording their selections; in cyberspace people are often unaware of the fact that their purchases are being recorded.

Like Easterbrook, Lessig recognizes the limits of the law in cyberspace, and he looks to a broader regulatory framework instead to compensate for these limitations (see Easterbrook's "bargaining institution"). He posits four "modalities of regulation" (p. 506): laws, norms, markets and architecture. In real space, architecture constrains physical space, for example a locked door or a speed bump. In cyberspace, code equals architecture, code being the instructions that dictate the behavior of both hardware and software. The four modalities work in conjunction with each other, either competitively or cooperatively, to bring about regulatory goals. Further, modalities may influence other modalities to indirectly bring about a regulatory end. For example, a law may be used to influence a market modality. Lessig then argues that

government, through laws, can alter the architecture of the Internet, the code. He elaborates on the difficulty of making laws that regulate architecture in *Code and Other Laws of Cyberspace* (1999b), namely the ambivalence among citizens and even the government itself about governmental involvement in regulating the Internet. He uses the example of the domain name system, which the government handed control of to the non-profit corporation Internet Corporation for Assigned Names and Numbers (ICANN). He first notes the similarities between ICANN and the government: "A 'nonprofit corporation devoted to the collective interest'? Isn't that just what government is supposed to be? A board composed of representative stakeholders? Isn't that what a Congress is?" (p. 220). And then he offers a frank criticism:

> This is policy making vested in what is in effect an independent agency, but one wholly outside the democratic process. And what does that say about us? What does it mean when our natural instinct is to put policy-making in bodies outside the democratic process?…We have lost the idea that ordinary government might work, and so deep is this despair that not even government thinks that government should have a role in governing cyberspace. (p. 220)

Hunter (2003) goes beyond Easterbrook's and Lessig's arguments that the law, by itself, is inadequate for regulating cyberspace and argues that applying existing laws in cyberspace can be harmful. He argues that the language that is used to describe cyberspace is metaphorical to physical space. This has led to a flawed conception of cyberspace as a physical place that subsumes important differences between the two, and results in the misapplication of laws that are based on characteristics of physical space. For example, Hunter discusses revival of the trespass to chattels law for use in a number of Internet legal disputes. Trespass to chattels is an

old common law that provides legal recourse for unauthorized use of personal property, or use that interferes with the owner's ability to use the property. Hunter notes:

> It is revealing that this line of cases struggles to define the chattel at issue. At times the courts suggest that the chattel is simply the computer, but more often it is a nonspecific combination of computer, bandwidth, capacity, processing power, or network. With the exception of the computer itself, none of these 'chattels' are actually chattels at all. There is no private property in bandwidth or processing power or network.(p. 486)

He argues that this paves the way for a troubling privatization of Internet resources.

Spinello (2006) discusses the regulation of cyberspace using the economist Adam Smith's terms: the "visible hand" of government and the "invisible hand" of the marketplace. He discusses some of the pros and cons of each – the visible hand of government can be inefficient, the invisible hand of the marketplace can be "reactive and inequitable" (p. 39) – and ultimately underscores the importance of ethics and personal responsibility in regulating the Internet. According to Spinello, "*Moral values must be the ultimate regulator of cyberspace, not the code of engineers*." (p. 47).

Like Lessig, Murray (2007), is interested in regulatory systems. His book is a comprehensive look at regulatory theories and systems as they apply to cyberspace. Of particular interest is the second chapter of the book in which the author discusses complexity in regulatory environments and the use of systems theory to understand this complexity. He notes that "Systems theory's main effect on regulatory theory was to suggest the 'law of requisite variety'" (p. 27) and that ultimately this law means that "any regulator can never be sure, in any complex system, what effect his actions will have." (p. 27) Rather than accepting defeat, however, the regulatory theorists have attempted to describe strategies that governments can use to achieve

regulatory ends. Robert Baldwin and Martin Cave outline a collection of strategies government can use to influence industrial, economic and social activity.

> Thus government may (a) use legal authority and the command of law to pursue policy objectives, or it may (b) deploy wealth through contracts, loans, grants, subsidies or other incentives to influence conduct, or (c) harness markets by channeling competitive forces to particular ends, or (d) deploy information strategically, or (e) act directly by taking physical action, or (f) confer protection to create incentives. (p. 28)

Thatcher simplifies this model as follows:

> (1) *classical economics,* where regulation is an interference in the market that may be necessary, (2) *political economy,* where regulation is inherent to society, and is used by the state to ensure that the market functions, (3) *political science and law,* where regulation steers public activity and is concerned with controls over private activity, and (4) *sociological,* where regulation is achieved through information norms that guide behaviour. (p. 28)

He discusses Lessig's four modalities of regulation as an out growth of traditional regulatory models such as Baldwin's, Cave's and Thatcher's, and suggests a variation on this model: hierarchical control (equivalent to Lessig's law modality), competition-based control (equivalent to Lessig's market), community-based control (equivalent to Lessig's norms) and design-based control (equivalent to Lessig's architecture). He then discusses competition between these control modalities using case studies such as the United States Radio Act of 1927. Murray suggests that hierarchical controls, analogous to the law in Lessig's model, are ineffective in cyberspace because they are state-based rather than global. Like Lessig, he sees

design-based, or architectural, controls as being more promising as a regulatory mechanism in cyberspace.

Classification of the Safe Harbor Framework using regulatory models.

As noted in the Introduction, participation in the Safe Harbor Framework is voluntary, but once organizations are in the program, they are subject to a dispute resolution procedure and, if found to be non-compliant with the Safe Harbor principles, may be prosecuted under the False Statements Act. Legal action comes into play only after voluntary disclosure of information. For this reason, enticing organizations to participate in the Framework is critical to the success of this regulatory strategy. The Department of Commerce lists the benefits of participation on its Web site (United States Department of Commerce, 2010) and Table 1 classifies the benefits in terms of the four models of regulation described above. Most of these benefits are offered against the backdrop of a threatened interruption of data flow between the U.S. and the E.U. In general, the Framework protects businesses from a potential interruption or cessation of data transfer that could harm the business. Since there is no threat of legal action for not participating in the Framework, strategies that include law do not apply. These include Baldwin's and Cave's "use legal authority and the command of law to pursue policy objectives"; Thatcher's "political science and law"; Lessig's "law" and Murray's "Hierarchical control." None of these benefits speak to physical control so Baldwin's and Cave's "act directly by taking physical action", along with Lessig's "architecture" modality and Murray's "design-based" modality do not apply. The actors in this Framework are U.S. organizations, the U.S. government, and the E.U. government. The benefits listed below do not describe any social incentives for participation, for instance an appreciation on the part of European and American citizens for privacy protection. For this

reason, Thatcher's "sociological," Lessig's "norms" and Murray's "community-based controls" do not apply. Based on the analysis below, the incentives for participating in the Framework are largely market-based, but they do not offer businesses a competitive advantage. They merely offer businesses the opportunity to avoid an adverse event.

Table 1

Regulatory Classification of Framework Benefits for Participants

DoC Described Framework Benefit	Baldwin and Cave Classification	Thatcher Classification	Lessig Classification	Murray Classification
All 27 Member States of the European Union will be bound by the European Commission's finding of adequacy	Confer protection to create incentives	Classical economics or political economy	Market	Competition-based control
Companies participating in the safe harbor will be deemed adequate and data flows to those companies will continue	Confer protection to create incentives	Classical economics or political economy	Market	Competition-based control
Member State requirements for prior approval of data transfers either will be waived or approval will be automatically granted	Confer protection to create incentives	Classical economics or political economy	Market	Competition-based control
Claims brought by European citizens against U.S. companies	Confer protection to create incentives	Classical economics or political economy	Market	Competition-based control

will be heard in the U.S. subject to limited exceptions				
A simpler and cheaper means of complying with the adequacy requirements of the Directive, which should particularly benefit small and medium enterprises	Harness markets by channeling competitive forces to particular ends	Classical economics or political economy	Market	Competition-based control
The Framework is an important way for U.S. companies to avoid experiencing interruptions in their business dealings with the EU or facing prosecution by European authorities under European privacy laws	Confer protection to create incentives	Classical economics or political economy	Market	Competition-based control

Chapter 3 – Methodology

The study was qualitative using content analysis methods to approximate the size of a population of businesses that were potentially eligible to participate in the Framework that did not participate.

At a high level, I used the following methodology:

1. Defined the study population
2. Defined the study sample
3. Determined whether each business in the sample participated in the Framework, TRUSTe, or BBBOnline.
4. Analyzed the data resulting from steps 1 through 3

Defined the Study Population

In 2009, there were 27.5 million businesses in the US (United States Small Business Administration Office of Advocacy, 2009). Given this huge number of potentially eligible businesses, I included only US companies with between 50,000 and 500,000 employees. The reason for this is that the Directive is expressly concerned with protecting the privacy of individuals, and human resource data is often personally identifiable. If a business is a large employer *and* it has locations in the EU, it is reasonable to assume that this increases the chances the company has employees in the EU. Due to resource constraints, I did not attempt to make this population representative of the larger population of US owned businesses.

Source of information for study population.

The source of information for the study population was the Reference USA – Business database. The database is a product of the infoGroup company and contains information about 14

million US businesses. It is updated monthly and researchers employed by infoGroup call the businesses to verify the accuracy of the information (Infogroup Reference Division, 2010).

Steps to create the study population.

I used the following steps to obtain a population of US businesses with between 50,000 and 500,000 employees. To ensure that 500,000 was the uppermost limit, I first queried for businesses with 500,000 to 1,000,000 employees. This query returned no results.

1. Accessed the Reference USA – Business database at http://reference.infousa.com.dml.regis.edu/Home/Home
2. In the "Available Databases" pane, clicked on "U.S. Businesses"
3. In the "US Businesses" database, selected the "Custom Search" tab
4. In the "Custom Search" tab, clicked on the "Business Size" search option and checked "Number of Employees"
5. In the "Number of Employees" pane, clicked on "Show More Options"
6. With more options showing, entered 50,000 in the "From" textbox under "Actual Number of Employees" and entered 500,000 in the "To" textbox. Clicked on the "View Results" button.

The preceeding steps yielded a study population of 337 organizations.

Steps to download the study population information for further analysis.

The Reference USA database included a feature that enabled downloading search results to an Excel spreadsheet. This was useful because I needed to perform further analysis to determine if each organization qualified for inclusion in the study sample, and I needed a static document to keep track of the study sample. Reference USA limited the number of records that could be

downloaded to 50 per search. The search results appeared 25 buisnesses to a web page. I selected 50 records at a time and performed the steps below on each group of 50 records.

1. In the search results window, clicked on the leftmost column entitled “All/None.” This enabled selection of all of the retrieved records on the page or none of them. Selected “All.” I did this for two pages (50 records) in the result set.
2. Clicked on the “Download” button.
3. On the “Download” page, in the “Step One” pane, selected Excel as the download file format. In the “Step Two” pane, select the “Custom” radio button. This enabled selection of the fields that would be exported to the Excel spreadsheet.
4. In the “All” tab, selected the following fields for export to the Excel spreadsheet: Company Name, Address, City, State, Location Zip Code, Fortune 1000 Ranking, Primary NAICS Description, NAICS 1 Description, NAICS 2 Description, NAICS 3 Description, NAICS 4 Description, NAICS 5 Description, Parent Company Name, Corporate Employee Size Actual, Foreign Parent Flag, Location Employee Size Actual, Location Type. Clicked on the “Download Records” button. I then saved these columns by entering “Thesis” in the “Name” textbox and clicking on “Save.” For each subsequent download, I clicked on “Load” to automatically select these columns.
5. Repeated steps 1-4 for each group of 50 records.
6. The download process created a separate Excel document for each group of 50 records, so I cut and pasted each group of 50 records into one Excel spreadsheet to have them all in one document. This became the study population spreadsheet.

Defined the Study Sample

I used a purposeful sampling methodology and included only those businesses that met the eligibility criteria of the Framework. The eligibility criteria are as follows:

1. Must be a US owned business, or have a subsidiary operating in the US, as the Framework is intended to help businesses subject to US laws comply with the Directive.
2. Must be in one or more of the industry sectors covered by the Framework. Since compliance with the Framework, once an organization has volunteered to participate, is enforced by the US Federal Trade Commission (FTC) or the US Department of Transportation with respect to air carriers and airline ticketing agencies (United States Department of Commerce, 2010), the Framework excludes those industry sectors that are not under FTC jurisdiction. Excluded sectors are:
    - financial institutions, including banks, savings and loans, and credit unions
    - telecommunications and interstate transportation common carriers
    - Not-for-profits
    - meat packers and stockyard operators
3. Must be likely to transact personally identifiable data with a member country of the EU.

Steps to determine if organizations met sampling criteria.

I used the study population Excel spreadsheet to note whether an organization met all criteria to be included in the sample. An organization had to meet all of the criteria to be included in the sample. If an organization did not meet a criterion, I included an explanation for excluding the organization from the study sample in the spreadsheet. I

took the following steps to determine whether each business in the population met each criterion. Each step below corresponds with the same-numbered criterion above:

1. In order to be included in the USA Reference database, businesses must be US owned or have subsidiaries operating in the US, so this criterion was met by all businesses in the population.
2. The USA Reference Database included a "Business Type" query option. In order to exclude organizations in ineligible industry sectors, I first excluded all government offices, which are by definition not-for-profit, by following these steps:
    a. In the "US Businesses Database" window, "Custom Search" tab, selected the "Special Selects" option and checked the "Government Office" checkbox. I did this with the "Business Size" criteria described previously in place so that only the study population was included in this query.
    b. In the "Government Office" pane, checked all the options to capture all types of government offices. The options were "Federal", "State", "Municipal" and "County."
    c. Clicked on "Update Count" to retrieve query results. This yielded 41 organizations as of June 1, 2010.
    d. Clicked on "View Results."
    e. Used the study population spreadsheet to indicate each of these organizations would not be included in the study sample, with the reason for exclusion being "Not-for-profit."

To eliminate organizations in the other ineligible industry sectors, I used the North American Industry Classification System. The NAICS "was developed under the direction and

guidance of the Office of Management and Budget (OMB) as the standard for use by Federal statistical agencies in classifying business establishments for the collection, tabulation, presentation, and analysis of statistical data describing the U.S. economy. (United States Census Bureau, 2010) I performed the following steps:

f. In the "US Businesses Database" window, "Custom Search" tab, selected the "Business Type" option and checked "Keyword/SIC/NAICS."
g. Selected the "Search all NAICS" radio button.
h. Entered the keyword "bank."
i. This caused a list of NAICS codes and descriptions containing the word bank to appear in the "Results" pane.
j. Clicked on each NAICS code and description related to financial institutions, savings and loans and credit unions. This caused the NAICS code to appear in the "Selected" pane.
k. Clicked on "Update Count" and then ""View Results."
l. Used the study population spreadsheet to note that these organizations would be excluded from the study sample with the reason for exclusion being "Bank."
m. Repeated steps f-l for each of the following keywords:

"telecommunication carrier," "interstate transportation," "airline," "meat packer," "credit union," "insurance," "not-for-profit" and "non-profit." "Not-for-profit" and "non-profit" yielded no results so I further extrapolated and assumed that organizations with an NAICS description of "Colleges and Universities," were not-for-profits and excluded these from the sample.

3. I first used the "Business Profile" field in the Reference USA database to determine whether a business operated outside the US. If there was an indication that the business operated internationally, or there was no mention of operating locations at all, I accessed the business's website to determine whether it had locations in the EU and whether the business employed people in the EU. If the business's website did not mention operations in the EU, I excluded it from the sample. If the "Business Profile" field mentioned operating locations but did not mention operations in the EU, I exclude it from the sample without checking the business's website.
4. If I did not eliminate an organization for any of the reasons described above, I indicated in the study population spreadsheet that the "Reason for Exclusion" was Not Applicable (N/A).

Created study sample spreadsheet.

I used the study population spreadsheet and did a sort on the "Reason for Exclusion" column so that only those organizations with a value of N/A in the "Reason for Exclusion" column appeared. I then copied all these records into a new Excel spreadsheet which became the study sample spreadsheet.

Determined Whether Businesses Participate in Framework

As noted, businesses that participate in the Framework are listed on a Department of Commerce Web site. The Department of Commerce also considers businesses that are certified by TRUSTe or BBBOnline as being compliant with the Framework. They both offer programs specifically designed to certify that businesses comply with the Framework and they list certified

businesses on their respective Web sites. Therefore, if a business is listed on the Department of Commerce Website, the TRUSTe Web site, or the BBBOnline Web site, I considered them to be participants in the Framework.

Steps to determine whether organizations participate in Framework.

1. Accessed the database of businesses participating in the Framework at https://www.export.gov/safehrbr/list.aspx. By default, the list appeared in alphabetical order by the organization's name. There was an index of letters at the top of the list that linked to alphabetic groups of businesses. For example, the "A" link connected to a list of all business names beginning with the letter "A." I used this index to manually search by business name. If I found a match, I would verify that it was the same business by checking that the location in the study sample spreadsheet was the same as the location listed on the Safe Harbor Website. If I did not find a match, I noted in the study sample spreadsheet that the business did not participate in the Department of Commerce program and continued to step 2.
2. Accessed the database of businesses that participate in the TRUSTe certification program at http://www.truste.com/trusted_sites/programs.html#EU%20Safe%20Harbor%20Seal. By default, the list appears in alphabetical order by the organization name. I manually searched for the business by name. If I found the business, I noted that the organization was participating in the TRUSTe program in the study sample spreadsheet and continued to step 3. If it did not appear, I noted this in the study sample spreadsheet and continued to step 3.

3. Accessed the database of organizations that participate in the BBBOnline program at https://www.auto.bbb.org/scripts/cgiip.exe/WService=SafeHarb/EUHarbor/parts.w. By default, the list appeared in alphabetical order by organization name. I manually searched for the organization by name. If I found the business, I noted that the organization participated in the BBBOnline program in the study sample spreadsheet. If it did not appear, I noted in the study sample spreadsheet that the organization did not participate in the BBBOnline program.
4. If a business participated in one or more of the programs, I considered them to be participating in the Framework. If they did not participate in any of the programs, I considered them to be non-participants.

Analyzed the Data

In order to find patterns of participation in the study sample, I analyzed the data based on three business attributes: 1) Location, 2) Size (as indicated by number of employees), and 3) Industry Sector.

Reasons for excluding organizations from study sample.

I used the study population Excel spreadsheet to summarize how many organizations were excluded from the study for each given reason. I used the Excel COUNTIF function to count the number of occurrences of each reason in the spreadsheet, and then used an Excel formula to calculate percent of the total population accounted for by each reason. The formula was: Total Number of Organizations Excluded for a Given Reason / Total Number of Organizations in Study Population.

Characteristics of study sample: location.

The location attribute (city, state) was readily available for each organization in the Reference USA Business database and therefore was a field downloaded to the study sample spreadsheet. I used the COUNTIF function in the study sample spreadsheet to count the number of organizations in each state.

Characteristics of study sample: size.

Since "Size" was different for each business, I created size ranges and added this as a column in the study sample spreadsheet. The size ranges were in increments of 50,000 employees as follows: 1) 50,000-100,999, 2)101,000-150,999, 3) 151,000-200,999, 4)201,000-250,999, 5) 251,000-300,999, 6) 301,000-350,999, 7) 351,000-400,999, 8) 401,000-450,999, 9) 451,000-500,000. After dividing the businesses into these categories, it was evident that the majority of businesses fell into the 50,000-100,999 category, so I created a second grouping: 1) 50,000-100,999, and 2) 101,000-500,000. I used the COUNTIF function in the study sample spreadsheet to count the number of organizations in each group.

Characteristics of study sample: industry sector.

I used the Primary NAICS Code provided in the Business USA database to determine the industry sector for each business. I used the NAICS code lookup tool provided by the US Census Bureau (United States Census Bureau, 2010) to find the corresponding descriptions for codes. I first attempted to use the highest level sector as indicated by the first two digits of the NAICS code. If there was no corresponding description for the sector at this level, I then used the next

lower level, as indicated by the first three digits of the NAICS. I used the COUNTIF function in the study sample spreadsheet to count the number of organizations in each industry sector.

Overall participation in Framework.

I used the COUNTIF function in the study sample spreadsheet to count the number of instances of each of the following values in the "Compliance Program" column: "Department of Commerce," "BBBOnline," "Truste." I then created a pie chart in Excel.

Participation by location.

In order to understand the rate of participation of organizations by state, I imported the study sample spreadsheet into an Access database and ran the following query:

```
SELECT State, ComplianceProgram, count(*)
FROM SampleMaster
GROUP BY State, ComplianceProgram
ORDER BY 1;
```

After doing the state analysis, I grouped the states into regions based on U.S. Census Bureau regions (United States Census Bureau, 2010).

Participation by size.

In order to understand the rate of participation of organizations by size, I executed the following queries against the study sample Access database:

```
SELECT SampleMaster.CorporateEmployeeSizeRange50Kincrements,
SampleMaster.ComplianceProgram, count(*)
```

```
FROM SampleMaster
GROUP BY SampleMaster.CorporateEmployeeSizeRange50Kincrements,
SampleMaster.ComplianceProgram
ORDER BY 1;
SELECT SampleMaster.CorporateEmployeeSizeRange,
SampleMaster.ComplianceProgram, count(*)
FROM SampleMaster
GROUP BY SampleMaster.CorporateEmployeeSizeRange,
SampleMaster.ComplianceProgram
ORDER BY 1;
```

Participation by industry sector.

Using the Access database described previously, I executed the following query:

```
SELECT SampleMaster.NAICSIndustry, SampleMaster.ComplianceProgram, count(*)
FROM SampleMaster
GROUP BY SampleMaster.NAICSIndustry, SampleMaster.ComplianceProgram
ORDER BY 1;
```

Chapter 4 –Results

There were 337 organizations in the study population. Between the time the study population was generated the time the study sample was created, 2 businesses no longer appeared in the population generated from the Reference USA database and were therefore unavailable for further analysis. One hundred and sixty nine organizations did not meet all the criteria to be included in the study. The final sample contained 168 organizations. The most frequently occurring reason for exclusion was that the organization did not appear to have operations in the EU. The second most frequently occurring reason was that the organization was not-for-profit. Table 2 summarizes the number of organizations excluded and the reasons for exclusion.

Note that generally throughout this discussion of the study results, results that affect the largest number of organizations are considered, while results that affect only small numbers of organizations are not. So for example, while a number of industry sectors had the highest possible rate of non-participation in the Framework (100%), these are not included in the discussion because the number of organizations in these industry sectors was low, sometimes only 1 or 2, making the rate of participation for this industry sector less meaningful.

Table 2

Summary of Businesses Excluded From Study Sample

Reason for Exclusion	**Number of Businesses Excluded**	**Percent of Study Population**
No apparent operations in EU	81	24
Not-for-profit	51	15.13
Bank	19	5.63
Insurance	10	2.96
Telecommunication Carrier	6	1.7
No longer meets population criteria in Reference USA database	2	.6
Total	169	50.14

Characteristics of the Study Sample

Location of organizations.

The organizations in the study sample were located in 24 states. New York had the most organizations (19), followed by Texas (17) and New Jersey (16). Table 3 shows the number of organizations by location.

Table 3

Location of Organizations by State

State	Number of Organizations	Percent of Total Sample
NY	19	11.31
TX	17	10.12
NJ	16	9.52
CA	13	7.74
IL	12	7.14
GA	11	6.55
MI	11	6.55
PA	8	4.76
CT	7	4.17
MA	7	4.17
OH	7	4.17
FL	6	3.57
TN	6	3.57
VA	6	3.57
MN	5	2.98
KY	3	1.79
MD	3	1.79
MO	3	1.79
WA	3	1.79
CO	1	0.60
DE	1	0.60
IN	1	0.60
KS	1	0.60
WI	1	0.60
Total:	**168**	**100.00**

Size of organizations based on number of employees.

Over half (57.14%) of the organizations in the study sample had between 50,000 and 100,999 employees. Over a quarter (26.19%) had between 101,000 and 150,999 employees. Organizations with 151,000 to 500,000 employees accounted for only 16% of the total sample. Table 4 summarizes the distribution of organizations by number of employees.

Table 4

Size of Organizations by Number of Employees

Number of Employees (thousands)	Number of Organizations	Percent of Total Sample
50-100	96	57.14
101-150	44	26.19
151-200	16	9.52
201-250	1	0.60
251-300	4	2.38
301-350	3	1.79
351- 400	3	1.79
401- 450	0	0.00
451-500	1	0.60
Total:	**168**	**100.00**

Industry sector of organizations.

The organizations in the sample were spread over 36 North American Industry Classification System (NAICS) sectors. As shown in Table 5 almost 80% of the organizations were in the following seven sectors (in order of greatest number of organizations to least):

1. Computer and Electronic Product Manufacturing
2. Professional, Scientific, and Technical Services
3. Transportation Equipment Manufacturing
4. Chemical Manufacturing

5. Accommodation and Food Services
6. Information
7. Wholesale Trade

Table 5

Organizations by Industry Sector

NAICS Industry Description	Number of Organizations	Percent of Total Sample
Computer and Electronic Product Manufacturing	17	10.12
Professional, Scientific, and Technical Services	17	10.12
Transportation Equipment Manufacturing	13	7.74
Chemical Manufacturing	11	6.55
Accommodation and Food Services	10	5.95
Information	9	5.36
Wholesale Trade	9	5.36
Machinery Manufacturing	8	4.76
Administrative and Support and Waste Management and Remediation Services	7	4.17
Miscellaneous Manufacturing	7	4.17
Transportation and Warehousing	7	4.17
Finance and Insurance	6	3.57
Manufacturing	6	3.57
Retail Trade	5	2.98
Electrical Equipment, Appliance, and Component Manufacturing	4	2.38
Management of Companies and Enterprises	3	1.79
Paper Manufacturing	3	1.79
Real Estate and Rental and Leasing	3	1.79
Construction	2	1.19
Fabricated Metal Product Manufacturing	2	1.19
Nonstore Retailers	2	1.19
Personal and Laundry Services	2	1.19
Petroleum and Coal Products Manufacturing	2	1.19
Couriers and Messengers	1	0.60
Food and Beverage Stores	1	0.60
Food Manufacturing	1	0.60

General Merchandise Stores	1	0.60
Health Care and Social Assistance	1	0.60
Mining, Quarrying, and Oil and Gas Extraction	1	0.60
Miscellaneous Store Retailers	1	0.60
National Security and International Affairs	1	0.60
Nonmetallic Mineral Product Manufacturing	1	0.60
Plastics and Rubber Products Manufacturing	1	0.60
Primary Metal Manufacturing	1	0.60
Printing and Related Support Activities	1	0.60
Sporting Goods, Hobby, Book, and Music Stores	1	0.60
Total:	**168**	**100.00**

When sectors with the word “manufacturing” in the description are grouped together, this reduces the number of sectors to 23 and over 45% of the organizations fall into this group, as shown in Table 6.

Table 6

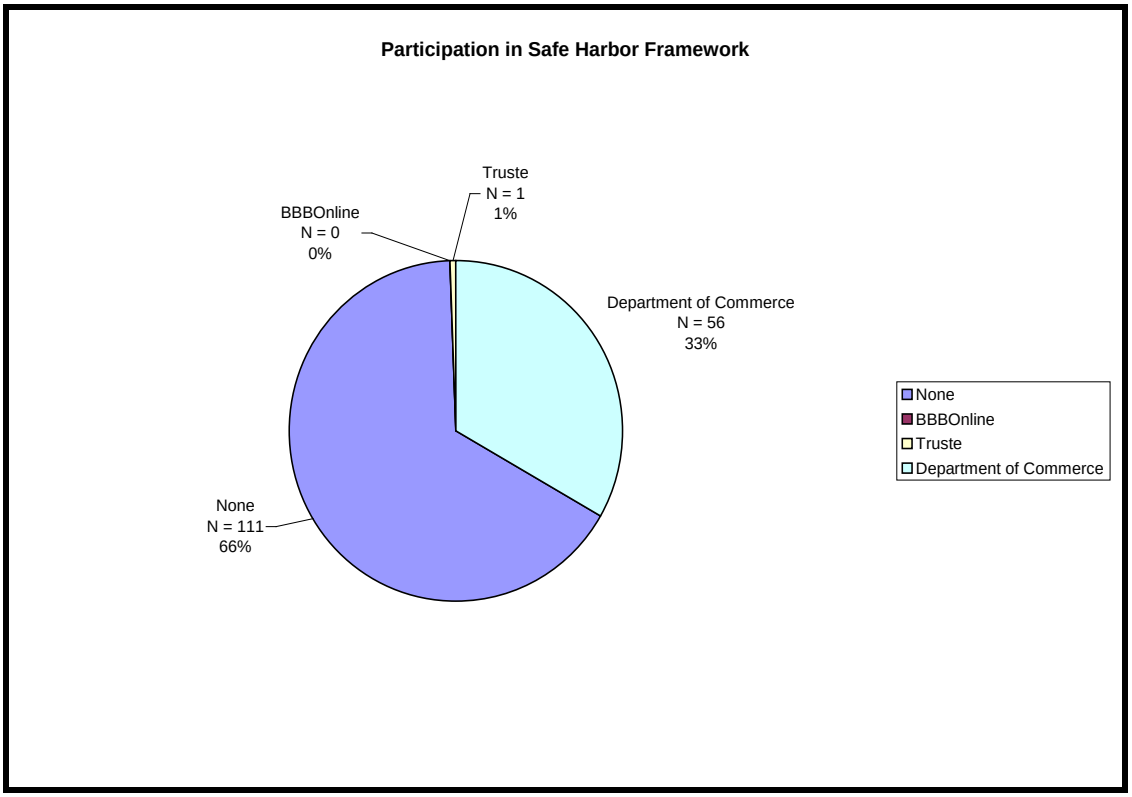
Organizations By Industry Sector, All Manufacturing Combined

NAICS Industry Description, Manufacturing Consolidated	Number of Organizations	Percent of Total Sample
All Manufacturing:	77	45.83
Professional, Scientific, and Technical Services	17	10.12
Accommodation and Food Services	10	5.95
Information	9	5.36
Wholesale Trade	9	5.36
Administrative and Support and Waste Management and Remediation Services	7	4.17
Transportation and Warehousing	7	4.17
Finance and Insurance	6	3.57
Retail Trade	5	2.98
Management of Companies and Enterprises	3	1.79
Real Estate and Rental and Leasing	3	1.79
Construction	2	1.19
Nonstore Retailers	2	1.19
Personal and Laundry Services	2	1.19
Couriers and Messengers	1	0.60
Food and Beverage Stores	1	0.60
General Merchandise Stores	1	0.60
Health Care and Social Assistance	1	0.60
Mining, Quarrying, and Oil and Gas Extraction	1	0.60
Miscellaneous Store Retailers	1	0.60
National Security and International Affairs	1	0.60
Printing and Related Support Activities	1	0.60
Sporting Goods, Hobby, Book, and Music Stores	1	0.60
Total:	**168**	**100.00**

Participation of Organizations in the Framework

Of the 168 organizations in the sample, 57 (34%) participated in the Framework, while 110 (66%) did not. Figure 1 shows participation in the Framework.

Figure 1. Summary of Organizations' Participation in Safe Harbor Framework



Analysis of participation in Framework by location.

Among the states with organizations numbering in the double digits, Texas is notable for its low rate of participation at just under 6%, while New Jersey had the highest rate of participation in this group at a little over 56%. Table 7 shows participation by state. Further analysis by region in Table 8 shows that the Southern region, that includes Texas, has the lowest rate of participation at a little over 17%, well below the overall participation rate of 34%, while all other regions have a participation rate between 39% and 43.10%.

Table 7

Participation of Organizations by State

State	Number of Organizations Participating	Percent Participating Per State	Number of Organizations Not Participating	Percent Not Participating Per State
NY	7	36.84	12	63.16
TX	1	5.88	16	94.12
NJ	9	56.25	7	43.75
CA	6	46.15	7	53.85
IL	3	25.00	9	75.00
GA	2	18.18	9	81.82
MI	5	45.45	6	54.55
PA	4	50.00	4	50.00
CT	2	28.57	5	71.43
MA	3	42.86	4	57.14
OH	4	57.14	3	42.86
FL	2	33.33	4	66.67
TN	2	33.33	4	66.67
VA	1	16.67	5	83.33
MN	1	20.00	4	80.00
KY	0	0.00	3	100.00
MD	1	33.33	2	66.67
MO	1	33.33	2	66.67
WA	1	33.33	2	66.67
CO	0	0.00	1	100.00
DE	0	0.00	1	100.00
IN	0	0.00	1	100.00
KS	1	100.00	0	0.00
WI	1	100.00	0	0.00

Table 8

Participation by Region

Region	Number in Location	Number Participating	Percent Participating in Region	Number Not Participating	Percent Not Participating in Region
Northeast (CT, DE, MA, PA, NJ, NY)	58	25	43.10	33	56.90
Midwest (IL, IN, KS, MI, MN, MO, WI)	41	16	39.02	25	60.98
South (FL, GA, KY, MD, TN, TX, VA)	52	9	17.31	43	82.69
West (CA, CO, WA)	17	7	41.18	10	58.82

Analysis of participation in Framework by size.

Among the three size categories with the greatest number of organizations (50K-100K, 101K-150K and 151K-200K), the 101K-150K category at 50% was the only one that had a participation rate above the overall participation rate of 34%. The 151K-200K group had a notably low participation rate of 12.50%.

Table 8

Participation by Size

Number of Employees (thousands)	Number of Organizations Participating	Percent Participating	Number of Organizations Not Participating	Percent Not Participating
50 -100	28	29.17	68	70.83
101 -150	22	50.00	22	50.00
151-200	2	12.50	14	87.50
201-250	1	100.00	0	0.00
251-300	2	50.00	2	50.00
301-350	1	33.33	2	66.67
351-400	1	33.33	2	66.67
401-450	0	0.00	0	0.00
451-500	0	0.00	1	100.00

Analysis of participation in Framework by industry sector.

Of the seven industry sectors that comprised almost 80% of the total study sample, two of the industries in this group fell below the 34% overall rate of participation. They were: Accommodation and Food Services with a 10% rate of participation and Professional, Scientific, and Technical Services with a 29.41% rate of participation. On the other end of the spectrum, Chemical Manufacturing had the highest rate of participation at almost 73%. Table 9 summarizes rate of participation by industry sector. Among the sectors that were not as well represented, there were several sectors that had a participation rate of 0%, including Finance and Insurance (N=6), and Electrical Equipment, Appliance, and Component Manufacturing (N=4).

Table 9

Participation by Industry Sector

NAICS Industry Description	Number Participating	Percent Participating Per Sector	Number Not Participating	Percent Not Participating Per Sector
Computer and Electronic Product Manufacturing	8	47.06	9	52.94
Professional, Scientific, and Technical Services	5	29.41	12	70.59
Transportation Equipment Manufacturing	6	46.15	7	53.85
Chemical Manufacturing	8	72.73	3	27.27
Accommodation and Food Services	1	10.00	9	90.00
Information	5	55.56	4	44.44
Wholesale Trade	4	44.44	5	55.56
Machinery Manufacturing	3	37.50	5	62.50
Administrative and Support and Waste Management and Remediation Services	1	14.29	6	85.71
Miscellaneous Manufacturing	3	42.86	4	57.14
Transportation and Warehousing	1	14.29	6	85.71
Finance and Insurance	0	0.00	6	100.00
Manufacturing	1	16.67	5	83.33
Retail Trade	2	40.00	3	60.00
Electrical Equipment, Appliance, and Component Manufacturing	0	0.00	4	100.00
Management of Companies and Enterprises	1	33.33	2	66.67
Paper Manufacturing	1	33.33	2	66.67
Real Estate and Rental and Leasing	1	33.33	2	66.67
Construction	0	0.00	2	100.00

Fabricated Metal Product Manufacturing	1	50.00	1	50.00
Nonstore Retailers	1	50.00	1	50.00
Personal and Laundry Services	1	50.00	1	50.00
Petroleum and Coal Products Manufacturing	0	0.00	2	100.00
Couriers and Messengers	0	0.00	1	100.00
Food and Beverage Stores	0	0.00	1	100.00
Food Manufacturing	0	0.00	1	100.00
General Merchandise Stores	0	0.00	1	100.00
Health Care and Social Assistance	0	0.00	1	100.00
Mining, Quarrying, and Oil and Gas Extraction	0	0.00	1	100.00
Miscellaneous Store Retailers	1	100.00	0	0.00
National Security and International Affairs	0	0.00	1	100.00
Nonmetallic Mineral Product Manufacturing	0	0.00	1	100.00
Plastics and Rubber Products Manufacturing	0	0.00	1	100.00
Primary Metal Manufacturing	1	100.00	0	0.00
Printing and Related Support Activities	1	100.00	0	0.00
Sporting Goods, Hobby, Book, and Music Stores	0	0.00	1	100.00

When all manufacturing sectors were combined, the rate of participation for this large group (N=77) was 41.56%, as shown in Table 10.

Table 10

Participation by Industry Sector, All Manufacturing Combined

NAICS Industry Description	Number Participating	Percent Participating Per Sector	Number Not Participating	Percent Not Participating Per Sector
All Manufacturing	32	41.56	45	58.44
Professional, Scientific, and Technical Services	5	29.41	12	70.59
Accommodation and Food Services	1	10.00	9	90.00
Information	5	55.56	4	44.44
Wholesale Trade	4	44.44	5	55.56
Administrative and Support and Waste Management and Remediation Services	1	14.29	6	85.71
Transportation and Warehousing	1	14.29	6	85.71
Finance and Insurance	0	0.00	6	100.00
Retail Trade	2	40.00	3	60.00
Management of Companies and Enterprises	1	33.33	2	66.67
Real Estate and Rental and Leasing	1	33.33	2	66.67
Construction	0	0.00	2	100.00
Nonstore Retailers	1	50.00	1	50.00
Personal and Laundry Services	1	50.00	1	50.00
Couriers and Messengers	0	0.00	1	100.00
Food and Beverage Stores	0	0.00	1	100.00
General Merchandise Stores	0	0.00	1	100.00
Health Care and Social Assistance	0	0.00	1	100.00
Mining, Quarrying, and Oil and Gas Extraction	0	0.00	1	100.00
Miscellaneous Store Retailers	1	100.00	0	0.00
National Security and International Affairs	0	0.00	1	100.00

Printing and Related Support Activities	1	100.00	0	0.00
Sporting Goods, Hobby, Book, and Music Stores	0	0.00	1	100.00

Chapter 5 – Conclusions

The Safe Harbor Framework is a government deployed regulatory mechanism that relies on market-based incentives to encourage, rather than require, US organizations to comply with the EU Data Privacy Directive. The market incentive is based on avoiding an interruption of data flow between US and EU organizations that transact personally identifiable data.

The goal of this study was to begin to learn how effective the Framework is at attracting organizations to voluntarily participate in the program. The overall participation rate of large US organizations eligible to participate in the Framework was 34%. This low rate of participation is consistent with the findings of other researchers (Kobrin, 2004; Barnes, 2006; Connolly, 2008). One strategy the Department of Commerce used to encourage organizations to participate was to allow organizations to use non-governmental entities, such as BBBOnline and TRUSTe, to certify compliance with the Directive. However, this study found that among large US employers, this strategy was ineffective, as only 1% of organizations used TRUSTe and none used BBBOnline.

In November of 2003, there were 401 organizations participating in the Framework (Commission of the European Communities, 2004). In January of 2010, there were 2096 organizations participating in the Framework. So in the approximately six years from the end of 2003 to the beginning of 2010 there was a 423% increase in participation, for an average yearly increase of 70.5%. In 2001 there were 87 participating organizations which increased to 401 by the end of 2003. Assuming that there were 87 participating organizations in January of 2001, the percent of increase in the three years between 2001 and the end of 2003 was 361%, for an average yearly increase of 120%. Thus it appears that growth in the pool of participating organizations has slowed. An area for future research is to investigate whether the Framework

has had indirect effects on the privacy policies of organizations. In other words, even if an organization chose not to participate in the Framework, were they aware of the Framework and did this cause them to alter their privacy policies to be more compliant with the Directive?

Of the 337 organizations in the study sample, just over half (N=169) were ineligible to participate. While it is not possible to generalize this statistic to the larger population of US businesses and conclude that there are over 13 million businesses eligible to participate in the Framework, it points the way to a line of inquiry about how many US businesses are eligible, and suggests a framework for making this determination on a larger scale, with a larger study population.

Most of the organizations in the sample (57%) had between 50,000 and 100,999 employees; and were located in the Northeast (58%). Forty-six percent of the organizations were in the Manufacturing Industry. Analysis of the data yielded some interesting patterns, but because of the small sample size and the way analysis was performed, it is difficult to conclude that these patterns are indicative of relationships. For example, organizations with between 50,000 and 100,999 employees (N=96) had a low rate of participation at 29.17%. This is lower than the overall participation rate of 34%. Organizations in the Southern region of the US (N=52), had a low rate of participation at 17.39%. The rate of participation in all other regions was between 39% and 43.10%. Organizations in the Accommodation and Food Services and Industry (N=10) had a low rate of participation at 10%. Another future direction is to do a quantitative study, increase the size of the study population and the study sample, and perform regression analysis to understand the relationships between variables.

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