



Compliance Cost Associated with the Storage of Unstructured Information

Sponsored by Novell

Independently conducted by Ponemon Institute LLC

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Part 1. Introduction

Sponsored by Novell, the purpose of this study is to better understand compliance costs associated with the storage of unstructured information within business organizations.¹ Our definition of compliance costs goes beyond efforts dedicated to privacy and data protection. It includes the management storage systems (a.k.a. configuration management), access governance and e-discovery operations. Safeguarding an organization's unstructured information from unauthorized access or misuse has become a daunting task for those responsible for its security, especially when the storage system does not directly reveal the creator, owner or primary users of stored information at the file level.

In an earlier study of more than 800 IT practitioners in US organizations, we determined that a significant amount of an organizations' sensitive or critical information is stored in an unstructured form.² Such data might include information about customers, employees, sales results, research, legal and compliance, finance and executive or board meetings. We also found that much of this information may not be well protected, thus increasing the risk of data loss or theft. Finally, our research shows that the storage of unstructured files are increasing rapidly, thus exacerbating the need for greater efficiency, control and compliance.

Drawing upon our proprietary database of 94 larger-sized benchmarked companies located in the US, we present re-analyzed cost results on the compliance activities associated with the storage of unstructured information. Our re-analysis of these benchmarked companies focus on the preventive and corrective controls implemented by them to secure a broad range of stored information, including documents, presentations, spreadsheets and other intellectual properties.

Using an activity-based costing framework, our re-analysis captures both the direct and indirect costs associated with unstructured information contained on permanent storage devices (not including portable data-bearing devices). In this context, we define costs to include all cash expenditures and internal costs including labor and overhead. Our analysis does not include soft costs such as opportunity losses, reputation damages and other intangible consequences of non-compliance.

Summary of key findings

Please note that Figure 1 reports the activity-based costing framework used in this re-analysis. This framework consists of nine discernible cost activity centers that define compliance costs associated with the storage of unstructured information for a one-year period. Following are the most salient findings of this research.

- The cost of compliance associated with the storage of unstructured information is expensive. On an annual basis, we estimate \$2.1 million as the average cost for 94 benchmarked organizations. The minimum cost is nearly \$400k and the maximum cost is over \$7.1 million.

¹ Unstructured information refers to electronic information on file servers and Network Attached Storage (NAS) devices that is not stored in a database or in a document/content management system. Examples may include electronic spreadsheets, PowerPoint and Word documents, audio files, video, blueprints, software source code, instant messages, Web pages and so forth. A large percentage of unstructured data is, or contains, sensitive or confidential business information. A typical business or government organization stores many thousands of files containing sensitive data in documents and files in shared folders on SAN, NAS and DAS storage systems.

²See: [Survey on the Governance of Unstructured Data](#), Ponemon Institute May 2008

- Approximately 61 percent of compliance costs are considered direct cost and 39 percent indirect costs. The split between direct and indirect cost varies considerably among the nine activity cost centers examined.
- The most frequently cited compliance activities include backup and disaster recovery operations, and access governance activities. The least frequent include policy management and monitoring or scanning activities.
- Overall, the most expensive compliance activities include e-discovery (\$768k), assessment and audit (\$637k), and access governance (\$594k).
- With respect to direct costs, the most expensive compliance activities include access governance (\$400k) and e-discovery (\$390k).
- Compliance costs increase with organizational size (headcount), but the rate of increase seems to be relatively flat. This suggests that smaller organizations incur a relatively higher cost burden than larger companies. The average cost for organizations with less than 5,000 employees is \$1.23 million, while the average cost for organizations with more than 75,000 is \$2.71 million.
- Among 11 industries, we found that industrial (\$2.81 million), pharmaceuticals (\$2.73 million), communications (\$2.52 million) and financial services (\$2.52 million) experience the highest average cost of compliance with respect to the storage of unstructured information.

Part 2. Cost Framework

Our primary method for determining the cost compliance associated with data storage relies on the objective collection of cost data. Using a well-known cost accounting method, we were able to allocate detailed cost data into discernible activity centers that explain the entire data protection and compliance mandate within benchmarked companies.³ We determined that the following nine cost activity centers explain the economic impact of compliance costs associated with the storage of unstructured information. Within each center, we compile the direct and indirect costs associated with each activity.

Following are nine cost categories included in our activity-based cost analysis.

Access governance – consists of all compliance activities associated with identity, authentication, provisioning and access rights to data stored on different platforms or configurations.

Configuration management – consists of all compliance activities associated with establishing and maintaining data storage requirements at the rack, volume and file level. This category also includes storage allocation and re-allocation decisions according to data center management policies.

Assessment and audit – consists of activities associated with the review, evaluation and verification of data storage according to the organization's policies and security requirements. This category also includes information governance assessment, including the review of storage providers in cloud or virtual environments.

Policy management – consists of all activities that are associated with the development, implementation and enforcement of company storage requirements (including those requirements specified by laws and regulations. This category includes the deployment of automated policy engines or tagging applications. It also includes data partitioning or classification schemes associated with different volumes or file storage systems. Finally, this cost category includes the maintenance of data archiving rules.

E-Discovery – these costs are associated with the discovery of electronic documents contained on the organization's storage devices typically required in litigation. It also includes other legal defense and compliance costs associated with the e-discovery process.

Monitoring and scanning – consists of all activities associated with monitoring storage policies and related compliance requirements as established by the company. While much of this cost is incurred in the organization's data center, it also includes remote monitoring efforts that may occur in outsourced or cloud storage environments. Scanning activities include the review of storage devices according to physical (environmental) and virtual metrics.

Backup and disaster recovery – includes all compliance costs associated with routine data backup efforts as well as all methods deployed to fend off various disasters including weather, cyber attacks, flooding, fire and so forth. This category also includes all costs incurred to recover data from damaged storage devices.

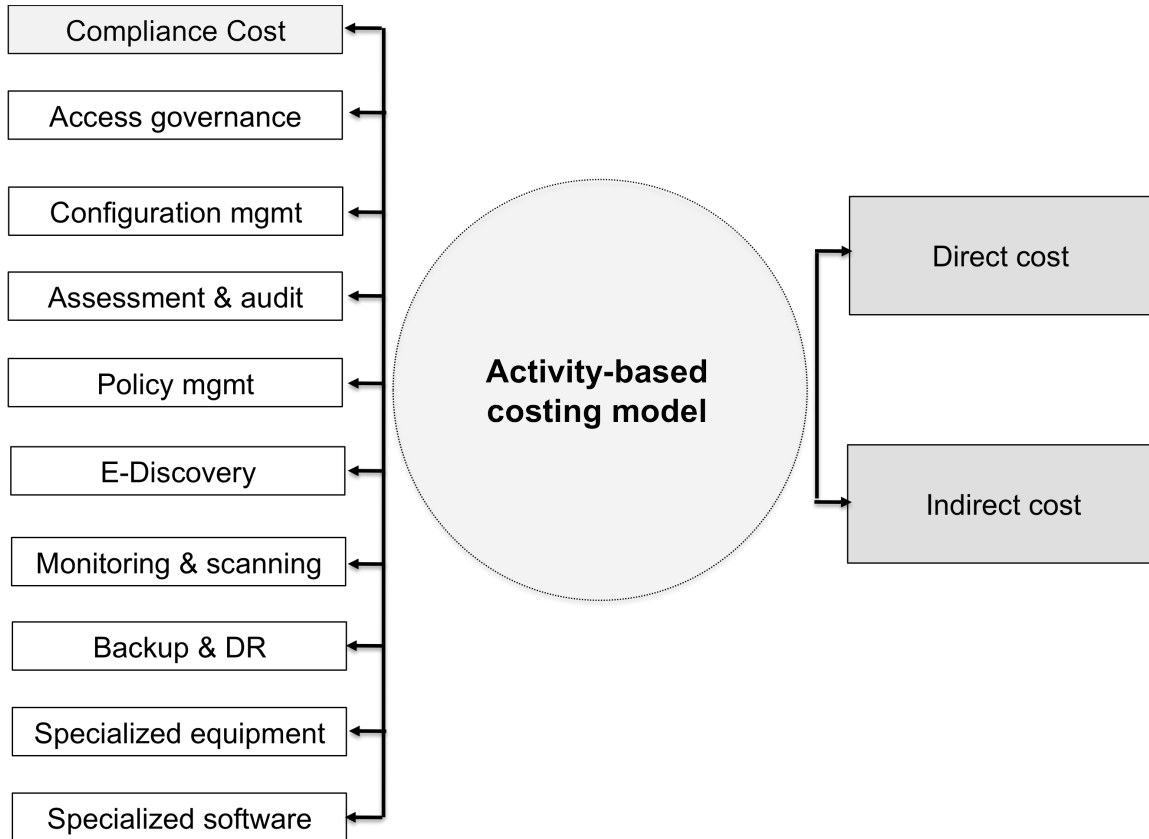
Specialized equipment cost – includes all expenditures, implementation and operating costs associated with equipment that facilitates the organization's data storage compliance efforts. Such equipment includes environmental control systems at the storage device or rack level. It also includes hardware maintenance and upgrade costs.

³ Ponemon Institute's Cost of Data Breach studies conducted over the past six years utilizes activity-based cost to define the total economic impact of data loss or theft that requires notification. See, for example, [2010 Cost of Data Breach](#), Ponemon Institute January 2011.

Specialized software cost – includes all expenditures, implementation and operating costs associated with software programs (applications) that facilitate the organization’s data storage compliance efforts. It also includes software maintenance and upgrade costs.

Illustration 1 presents the activity-based costing framework used in this research to define the compliance cost associated with unstructured information storage. As can be seen, it consists of nine discernible cost center activities. Each one of these activities generates both direct and indirect costs (in different proportions).

Illustration 1: Compliance cost framework for the storage of unstructured information

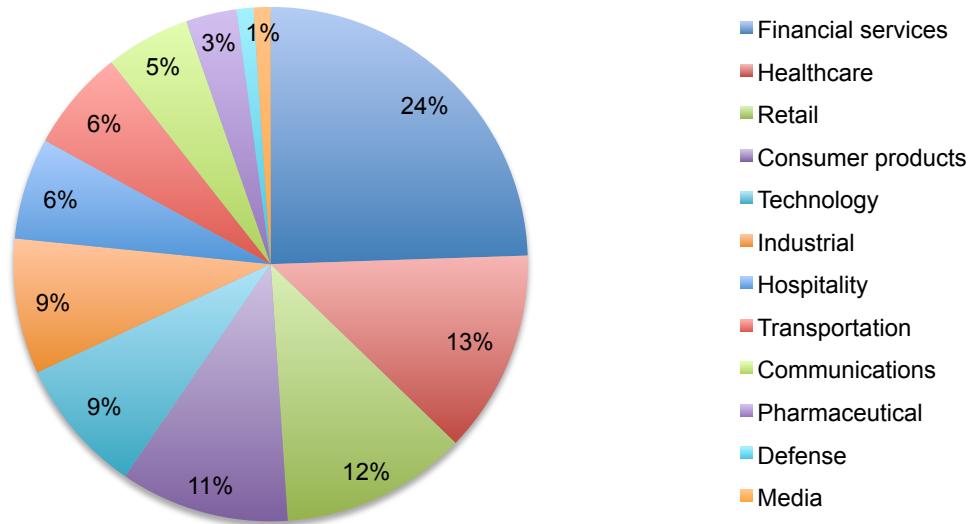


Part 3. Carve-out sample

Pie Chart 1 reports the percentage of companies by industry included in our benchmark analysis. Our final carve-out sample includes 94 organizations. Each organization serves as the unit of analysis. A total of 313 benchmarked organizations (a.k.a. case studies) were initially evaluated for inclusion in our analysis. However, 219 were rejected because they lacked robust information relating to data storage systems and specific compliance effort. Financial service companies represent the largest segment (24 percent), followed by healthcare (13 percent) and retail (12 percent).

Pie Chart 1: Industry classification of the benchmark sample

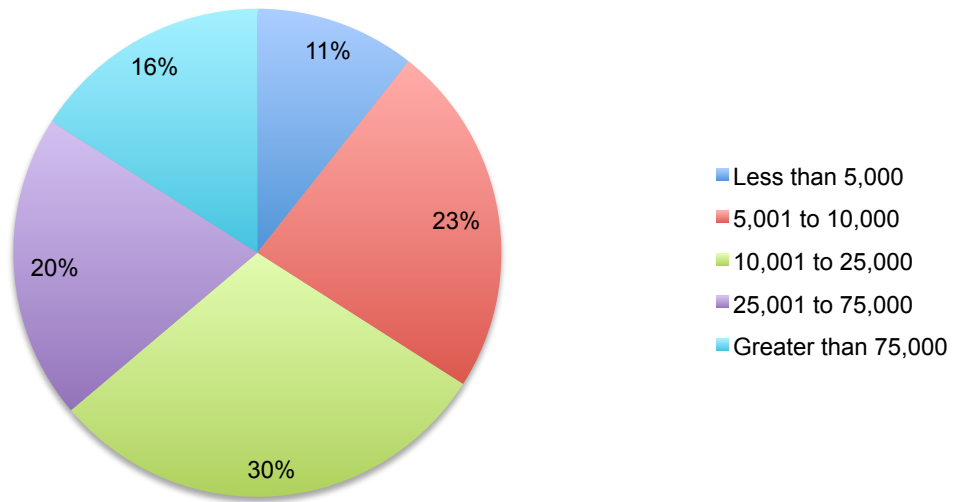
Computed from 94 benchmarked companies



Pie Chart 2 reports the headcount of organizations included in this benchmark sample. As can be seen, two-thirds (66 percent) are organizations with more than 10,000 full-time employees.

Pie Chart 2: Benchmark sample by global headcount (size)

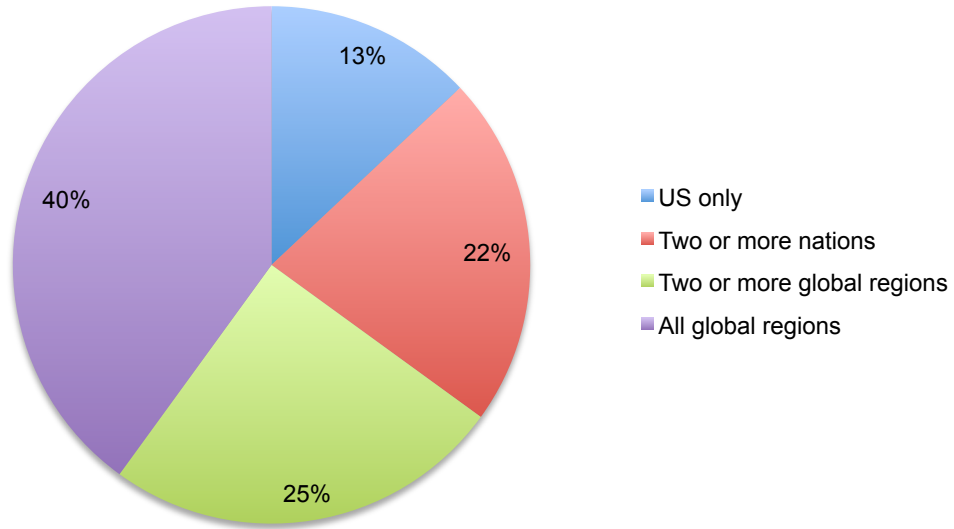
Computed from 94 benchmarked companies



Pie Chart 3 reports the global footprint included in this benchmark sample. As shown, 40 percent of companies operate in all global regions. Another 25 percent operate in two or more global regions. Only 13 percent operate solely in the United States.

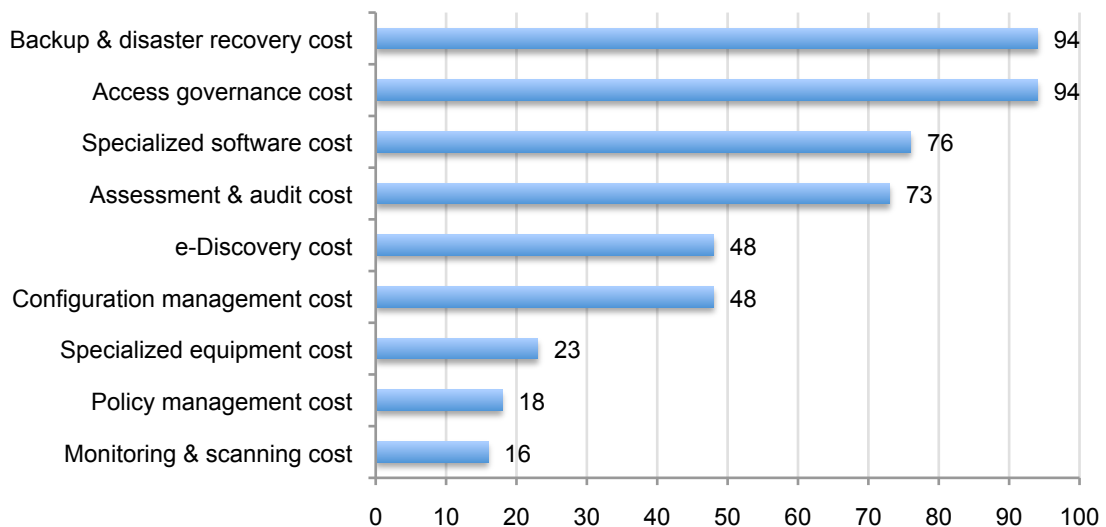
Pie Chart 3: Benchmark sample by global footprint

Computed from 94 benchmarked companies



Bar Chart 1 reports the frequency of cost activity centers examined in this research. As can be seen, two cost activity centers – backup and disaster recover and access governance – are present in all 94 companies. The remaining seven activity centers are present in only a subset of benchmarked companies.

Bar Chart 1: Frequency of nine activity cost centers for 94 benchmarked companies



Part 4. Benchmark Methods

To obtain information about each organization's compliance and related management costs associated with unstructured information, the researchers utilized an activity-based costing method and a proprietary diagnostic interviewing technique. Ponemon Institute's benchmark database contains descriptive costs for literally hundreds of cost activities relating to data protection, compliance (with applicable laws and regulations globally), and infrastructure. Within each cost center, we estimated both the direct and indirect compliance cost defined as follows:

- Direct cost – the direct expense outlay to accomplish a given activity.
- Indirect cost – the amount of other organizational resources spent, but not as a direct cash outlay.

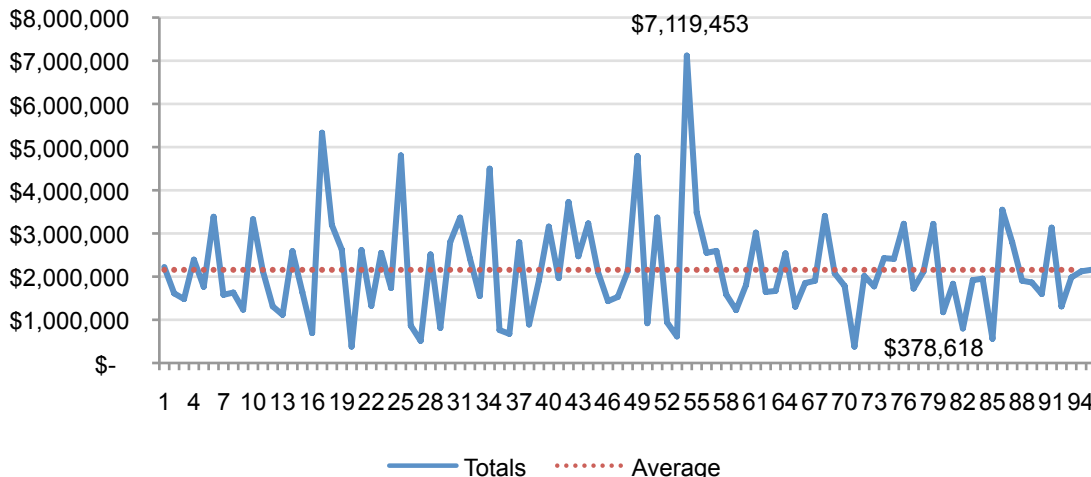
Our benchmark database was designed to collect descriptive information from companies' compliance efforts. Our research design relies upon a shadow costing method used in applied economic research. This method does not require subjects to provide actual accounting results, but instead relies on broad estimates based on the experience of individuals within participating organizations. Hence, we extrapolated the costs incurred by each organization either directly or indirectly to achieve compliance with a plethora of different requirements.

Within each category, cost estimation is a two-stage process. First, the survey requires benchmarked companies to provide direct cost estimates for each cost category by checking a range variable. A range variable is used rather than a point estimate to preserve confidentiality (in order to ensure a higher response rate). Second, the survey requires companies to provide a second estimate for indirect cost. These estimates are calculated based on the relative magnitude of indirect cost in comparison to a direct cost within a given category..

The size and scope of benchmarked activities are limited to known cost categories that cut across different industry sectors. To maintain complete confidentiality, the benchmark database does not contain company-specific information of any kind. Research materials do not contain tracking codes or other methods that could link responses to participating companies.

The present benchmarking process started with the re-analysis of 313 separate organizations with specific focus on all activities associated with the compliance of unstructured information retained in permanent storage systems. As mentioned, a total of 94 organizations had sufficient detailed results for our re-analysis. The benchmark data used in this report is not older than 24 months. The following graph reports the total activity cost distribution of our carve-out sample.

Line Graph 1: Distribution of total activity costs for 94 benchmarked companies



Part 4. Results

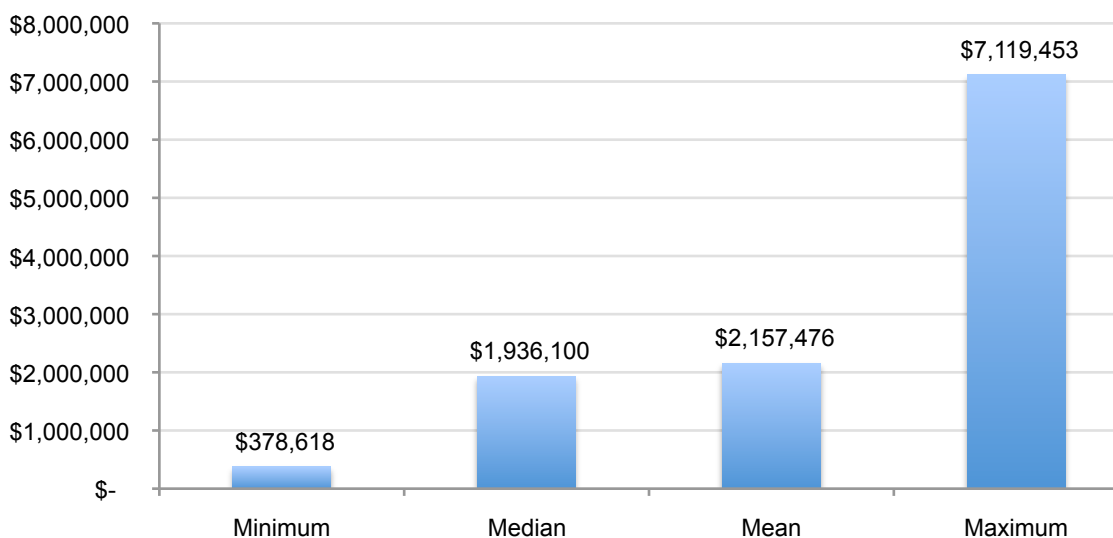
The following table summarizes the benchmark results on compliance cost associated with the storage of unstructured information. Please note that additional details will be provided in the final report.

| Table 1: Cost activities | Average | Median | Minimum | Maximum |
|---------------------------------|--------------------|--------------------|------------------|--------------------|
| Access governance | 593,939 | 360,984 | 68,324 | 4,341,378 |
| Configuration management | 314,217 | 244,590 | 15,508 | 1,678,507 |
| Assessment & audit | 636,873 | 607,008 | 52,607 | 1,973,607 |
| Policy management | 173,216 | 137,039 | 7,607 | 876,500 |
| E-Discovery | 768,977 | 684,344 | 198,100 | 1,588,369 |
| Monitoring & scanning | 94,349 | 67,336 | 33,576 | 500,100 |
| Backup & disaster recovery | 126,604 | 110,419 | 26,564 | 326,934 |
| Specialized equipment cost | 222,707 | 137,784 | 10,866 | 889,037 |
| Specialized software cost | 353,117 | 272,882 | 3,914 | 856,485 |
| Totals | \$2,157,476 | \$1,936,100 | \$378,618 | \$7,119,453 |

The cost of compliance associated with the storage of unstructured information is expensive. As shown in Bar Chart 2, we estimate \$2,157,476 as the average annual cost for 94 benchmarked organizations. The minimum cost is \$378,618 and the maximum cost is \$7,119,453.

Bar Chart 2: Overall activity cost statistics

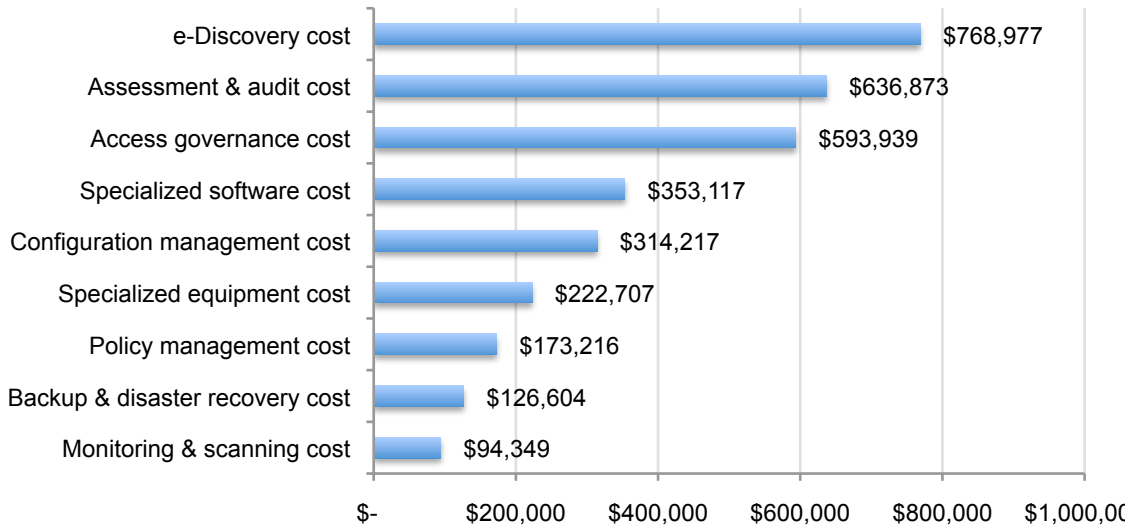
Benchmark sample = 94 companies



Overall, the most expensive compliance activities include e-discovery (\$768,977), assessment and audit (\$636,873), and access governance (\$593,939).

Bar Chart 3: Compliance activities in descending order by cost

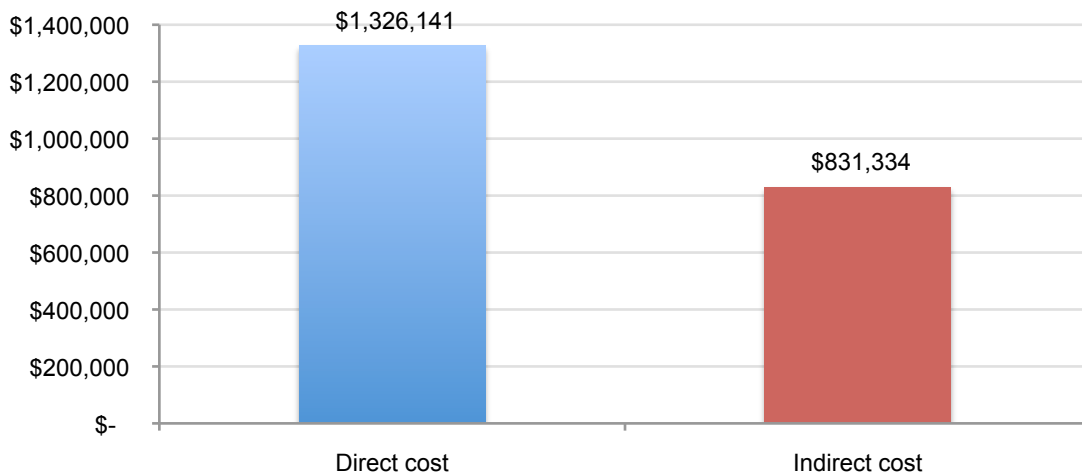
Benchmark sample = 94 companies



A majority of costs are classified as direct. Approximately 61 percent of compliance costs are direct (\$1,326,141) and 39 percent indirect (\$831,334). As previously noted, direct costs include all cash expenses and outlay to accomplish a given activity such as consultants, legal experts, external audits and so forth. Indirect costs are the labor, overhead and other organizational resources spent, but not a direct cash outlay.

Bar Chart 4: Direct and indirect cost of compliance for all activity centers combined

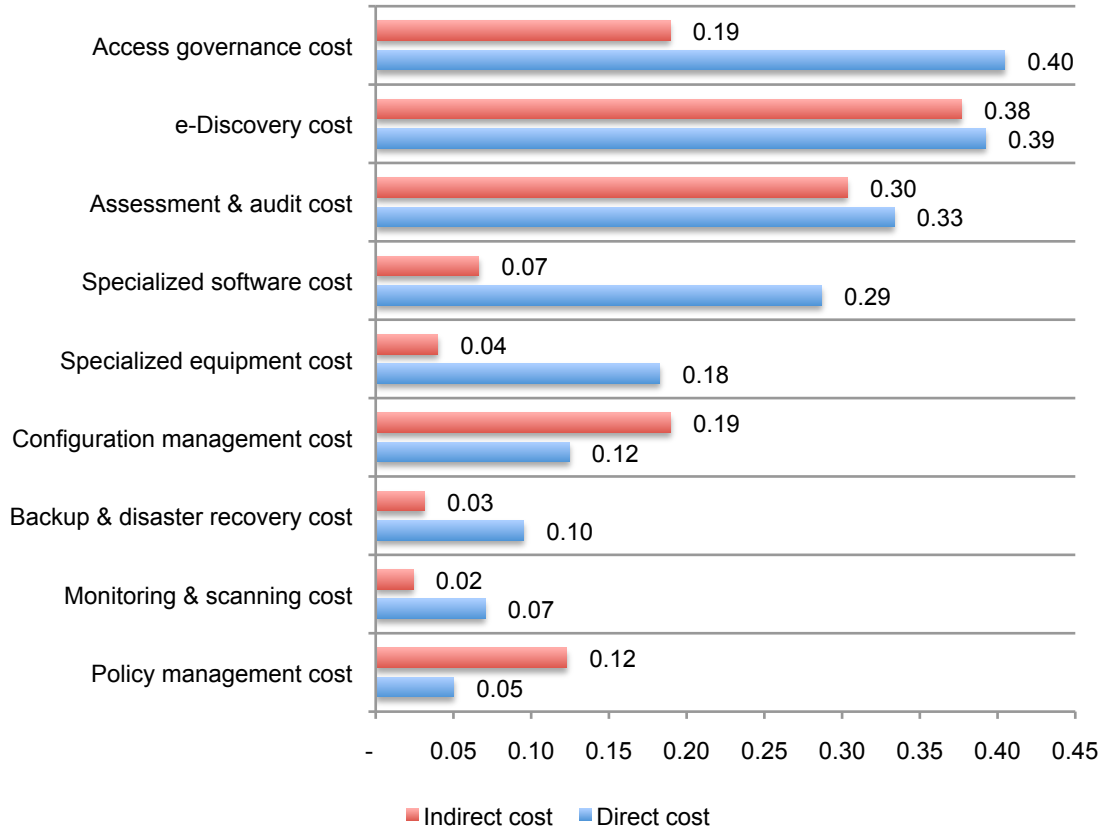
Benchmark sample = 94 companies



As shown in Bar Chart 5, the split between direct and indirect cost varies considerably among the nine activity cost centers examined. With respect to direct costs, the most expensive compliance activities include access governance and e-discovery. With respect to indirect costs, the most expensive are e-discovery and assessment and audit activities.

Bar Chart 5: Direct and indirect cost of compliance by activity center

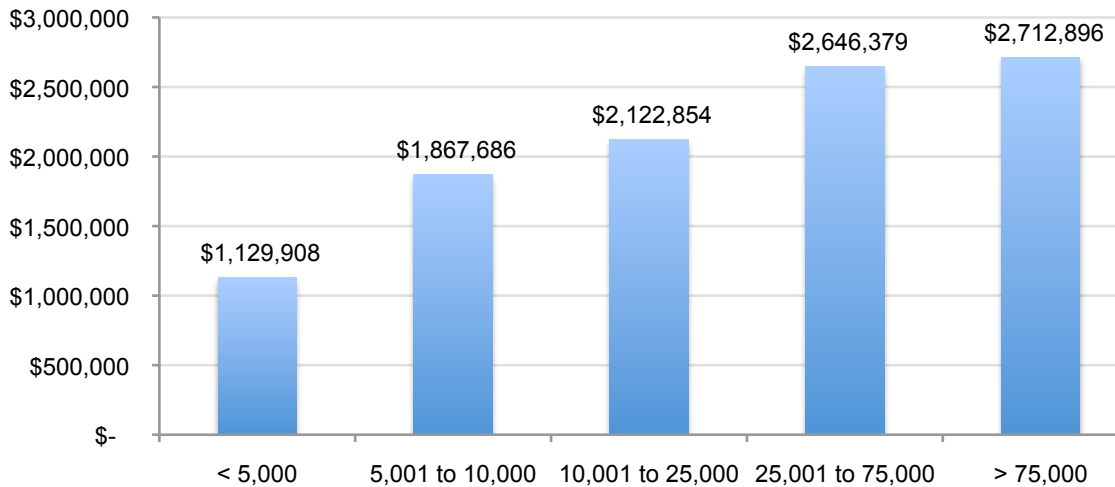
Benchmark sample = 94 companies
\$1,000,000 omitted



As noted in Bar Chart 6, compliance costs increase with organizational headcount. However, the rate of increase seems to be relatively flat. The average cost for organizations with fewer than 5,000 employees is \$1,129,908, while the average cost for organizations with more than 75,000 is \$2,712,896.

Bar Chart 6: Activity cost by organizational headcount (size)

Benchmark sample = 94 companies

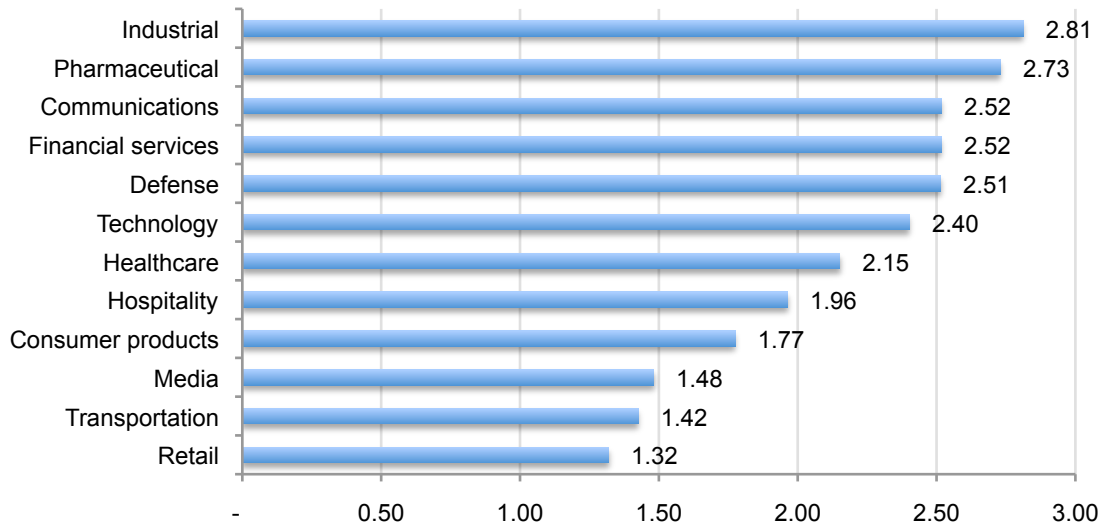


The above chart suggests smaller-sized organizations incur a relatively higher cost burden than larger companies.

In terms of industry differences, we found that industrial, pharmaceuticals, communications, and financial services experience a higher average compliance activity cost with respect to storage of unstructured information. Please note some industry sectors are too small to draw inferences about industry differences.

Bar Chart 7: Activity cost industry classification

Benchmark sample = 94 companies



Part 5. Caveats

This study utilizes a confidential and proprietary benchmark method that has been successfully deployed in earlier Ponemon Institute research. However, there are inherent limitations to benchmark research that need to be carefully considered before drawing definitive conclusions from findings.

- **Non-statistical results:** The purpose of this study is descriptive rather than normative inference. The current study draws upon a representative, non-statistical sample of data centers. Statistical inferences, margins of error and confidence intervals cannot be applied to these data by virtue of nonscientific sampling methods.
- **Non-response:** The current findings are based on a small representative sample of 94 completed case studies selected from 313 separate organizations. Non-response bias was not tested so it is always possible companies that did not participate are substantially different in terms of the underlying costs involved in safeguarding unstructured information on various storage systems.
- **Sampling-frame bias:** Because our sampling frame is judgmental, the quality of results is influenced by the degree to which the frame is representative of the population of companies being studied. It is our belief that the current sampling frame is biased toward companies with more mature compliance programs.
- **Company-specific information:** The benchmark information is sensitive and confidential. Thus, the current instrument does not capture company-identifying information. It also allows individuals to use categorical response variables to disclose demographic information about the company and industry category. Industry classification relies on self-reported results.
- **Unmeasured factors:** To keep the survey concise and focused, we decided to omit other important variables from our analyses such as leading trends and organizational characteristics. The extent to which omitted variables might explain benchmark results cannot be estimated at this time.
- **Estimated cost results.** The quality of survey research is based on the integrity of confidential responses received from benchmarked organizations. While certain checks and balances can be incorporated into the data capture process, there is always the possibility that respondents did not provide truthful responses. In addition, the use of a cost estimation technique (termed shadow costing methods) rather than actual cost data could create significant bias in presented results.

Appendix 1: Activity Costs for 94 Organizations

The following table summarizes the compliance cost associated with the storage of unstructured information for our carve-out sample of 94 companies. Please note that while all companies are located in the United States, most have operations in other nations.

| Obs# | Access governance | Configuration management | Assessment & audit | Policy management | e-Discovery |
|------|-------------------|--------------------------|--------------------|-------------------|-------------|
| 1 | 1,320,333 | 140,852 | 711,961 | | |
| 2 | 359,260 | | 476,304 | | 593,421 |
| 3 | 338,961 | | 365,698 | | 542,545 |
| 4 | 188,396 | 255,077 | 1,235,652 | | |
| 5 | 371,489 | | 609,060 | | 671,019 |
| 6 | 1,749,733 | 182,473 | 472,884 | 366,500 | |
| 7 | 277,427 | | 1,226,691 | | |
| 8 | 206,299 | 448,789 | 245,435 | 154,850 | |
| 9 | 262,914 | 567,364 | | | |
| 10 | 671,668 | 169,880 | 514,551 | 54,311 | 1,110,764 |
| 11 | 595,195 | 468,867 | 178,386 | 142,859 | |
| 12 | 306,584 | | 803,971 | | |
| 13 | 238,610 | | | | 591,479 |
| 14 | 191,928 | 259,677 | 813,526 | 8,237 | 684,551 |
| 15 | 704,107 | 99,723 | 337,281 | | |
| 16 | 147,534 | | 305,751 | | |
| 17 | 1,602,084 | 313,358 | 677,665 | 876,500 | 986,151 |
| 18 | 414,673 | | 507,344 | | 1,588,369 |
| 19 | 704,009 | 207,134 | 578,554 | | 1,102,359 |
| 20 | 68,324 | | | | |
| 21 | 550,370 | 308,593 | 634,964 | | 1,032,315 |
| 22 | 243,582 | | 328,081 | | 634,297 |
| 23 | 152,845 | | 1,079,770 | | 617,107 |
| 24 | 668,516 | 335,401 | 666,120 | | |
| 25 | 1,206,752 | | 1,319,544 | 332,174 | 1,100,842 |
| 26 | 345,235 | | 406,834 | | |
| 27 | 189,617 | | 139,677 | | |
| 28 | 381,674 | 388,790 | 102,915 | 137,549 | 360,176 |
| 29 | 163,521 | | 428,035 | | |
| 30 | 765,359 | 623,412 | | 136,529 | 388,517 |
| 31 | 1,280,117 | | 1,383,939 | | |
| 32 | 362,708 | 326,120 | 803,347 | | |
| 33 | 168,422 | | | | 954,306 |
| 34 | 2,160,135 | 657,900 | | | 1,378,178 |
| 35 | 192,456 | | 332,078 | | |
| 36 | 294,315 | 15,508 | | | |
| 37 | 126,467 | 523,268 | 52,607 | 165,211 | 410,974 |
| 38 | 123,795 | | | | 459,170 |
| 39 | 204,343 | 419,042 | 612,371 | 13,110 | |
| 40 | 244,086 | 1,678,507 | 101,193 | 143,998 | 327,125 |
| 41 | 135,859 | 157,793 | 682,518 | | |
| 42 | 1,901,454 | 49,338 | 915,748 | | |
| 43 | 457,642 | 248,807 | 792,231 | | |
| 44 | 1,324,081 | 64,900 | 766,278 | | |
| 45 | 1,264,239 | 325,798 | | | |
| 46 | 222,968 | | 418,331 | | 489,870 |
| 47 | 1,104,167 | 136,557 | | | |
| 48 | 136,077 | | 1,313,572 | | |

| Obs# | Access governance | Configuration management | Assessment & audit | Policy management | e-Discovery |
|---------|-------------------|--------------------------|--------------------|-------------------|-------------|
| 49 | 2,718,455 | 1,021,084 | 717,779 | | |
| 50 | 111,003 | 103,207 | | | |
| 51 | 236,726 | 93,874 | 1,074,191 | | 1,050,424 |
| 52 | 348,668 | | 421,802 | | |
| 53 | 225,706 | 76,500 | | | |
| 54 | 4,341,378 | | 1,973,607 | | 546,525 |
| 55 | 2,489,594 | 191,264 | 487,321 | | |
| 56 | 1,535,791 | | 752,876 | | |
| 57 | 618,116 | 231,039 | 792,473 | | |
| 58 | 366,919 | | 378,370 | | 622,796 |
| 59 | 195,697 | | 283,546 | | 508,357 |
| 60 | 1,183,386 | | | | 460,967 |
| 61 | 192,141 | | 1,261,593 | | 854,163 |
| 62 | 446,849 | | 308,523 | | 582,173 |
| 63 | 209,626 | | 288,661 | | 682,871 |
| 64 | 173,698 | 500,324 | 438,193 | 65,784 | 684,136 |
| 65 | 397,565 | | 703,432 | | |
| 66 | 228,537 | 24,767 | 795,471 | | |
| 67 | 393,543 | | 517,849 | | 851,786 |
| 68 | 637,771 | 157,089 | 590,082 | | 1,094,120 |
| 69 | 456,243 | | 702,728 | | 779,550 |
| 70 | 727,338 | 79,391 | 638,015 | | |
| 71 | 95,843 | | | | |
| 72 | 529,830 | 68,152 | 579,267 | | 714,173 |
| 73 | 100,815 | 366,091 | 311,720 | 127,400 | 290,913 |
| 74 | 241,924 | | 1,305,387 | | |
| 75 | 889,000 | | | | 1,201,192 |
| 76 | 369,974 | 240,373 | 786,076 | | 936,000 |
| 77 | 613,703 | | 814,929 | | |
| 78 | 168,036 | | | | 1,552,488 |
| 79 | 653,630 | 201,112 | 553,597 | 7,607 | 1,077,017 |
| 80 | 444,708 | | 583,840 | | |
| 81 | 415,744 | 58,183 | 406,682 | | 730,508 |
| 82 | 347,948 | | | | |
| 83 | 335,502 | | 681,189 | | 688,684 |
| 84 | 179,357 | 473,577 | | 192,288 | 524,937 |
| 85 | 254,735 | | | | |
| 86 | 605,693 | 345,337 | 607,008 | | 1,059,419 |
| 87 | 613,788 | | 819,268 | | 984,264 |
| 88 | 143,821 | 352,618 | 189,882 | 103,899 | 598,640 |
| 89 | 740,471 | 101,744 | 524,529 | | |
| 90 | 111,244 | | 701,582 | | |
| 91 | 1,658,491 | | | | 1,150,440 |
| 92 | 588,239 | | | | 462,740 |
| 93 | 270,688 | 88,657 | 834,813 | | |
| 94 | 132,000 | 935,110 | 324,599 | 89,074 | 198,100 |
| Average | 593,939 | 314,217 | 636,873 | 173,216 | 768,977 |

| Obs# | Monitoring & scanning | Backup & DR | Specialized equipment cost | Specialized software cost | Totals |
|------|-----------------------|-------------|----------------------------|---------------------------|-----------|
| 1 | | 50,573 | | | 2,223,719 |
| 2 | | 52,059 | | 131,896 | 1,612,940 |
| 3 | | 42,961 | | 191,032 | 1,481,197 |
| 4 | | 132,759 | | 581,637 | 2,393,521 |
| 5 | | 112,360 | | | 1,763,928 |
| 6 | | 34,584 | | 580,670 | 3,386,844 |
| 7 | | 74,814 | | | 1,578,932 |
| 8 | | 125,365 | 137,784 | 312,805 | 1,631,327 |
| 9 | | 252,210 | | 151,329 | 1,233,817 |
| 10 | | 55,031 | 154,369 | 599,244 | 3,329,818 |
| 11 | 97,159 | 46,660 | 164,918 | 433,195 | 2,127,239 |
| 12 | | 79,605 | | 120,701 | 1,310,861 |
| 13 | | 234,872 | | 50,586 | 1,115,547 |
| 14 | | 162,664 | 121,861 | 349,718 | 2,592,162 |
| 15 | | 26,564 | | 474,356 | 1,642,031 |
| 16 | | 128,036 | | 112,563 | 693,884 |
| 17 | | 78,948 | | 798,427 | 5,333,133 |
| 18 | | 131,567 | 552,315 | | 3,194,268 |
| 19 | | 35,102 | | | 2,627,158 |
| 20 | | 311,030 | | | 379,354 |
| 21 | | 89,075 | | | 2,615,317 |
| 22 | | 117,224 | | | 1,323,184 |
| 23 | | 91,652 | | 608,813 | 2,550,187 |
| 24 | | 68,252 | | | 1,738,289 |
| 25 | | 57,035 | | 791,253 | 4,807,600 |
| 26 | | 114,786 | | | 866,855 |
| 27 | | 122,103 | | 60,887 | 512,284 |
| 28 | 49,384 | 49,214 | 654,344 | 390,203 | 2,514,249 |
| 29 | | 115,812 | | 104,392 | 811,760 |
| 30 | 50,557 | 78,497 | 327,143 | 430,790 | 2,800,804 |
| 31 | | 101,433 | | 602,013 | 3,367,502 |
| 32 | | 86,983 | | 841,939 | 2,421,097 |
| 33 | | 297,449 | | 131,301 | 1,551,478 |
| 34 | | 304,664 | | | 4,500,877 |
| 35 | | 104,915 | | 132,967 | 762,416 |
| 36 | | 326,934 | | 37,934 | 674,691 |
| 37 | 43,713 | 137,180 | 889,037 | 446,294 | 2,794,751 |
| 38 | | 139,721 | | 168,439 | 891,125 |
| 39 | | 156,255 | 114,917 | 391,615 | 1,911,653 |
| 40 | 59,755 | 110,373 | 87,265 | 406,953 | 3,159,255 |
| 41 | | 162,797 | 442,170 | 384,764 | 1,965,901 |
| 42 | | 146,414 | | 715,883 | 3,728,837 |
| 43 | 89,760 | 92,865 | | 790,613 | 2,471,918 |
| 44 | | 155,314 | 424,300 | 498,145 | 3,233,018 |
| 45 | 55,670 | 271,379 | | 181,796 | 2,098,882 |
| 46 | | 112,062 | | 189,477 | 1,432,708 |
| 47 | | 175,387 | | 114,801 | 1,530,912 |
| 48 | | 111,678 | | 558,637 | 2,119,964 |
| 49 | | 61,497 | 31,271 | 241,534 | 4,791,620 |
| 50 | 500,100 | 206,350 | | | 920,660 |
| 51 | | 84,318 | | 828,517 | 3,368,050 |
| 52 | | 102,065 | | 65,749 | 938,284 |

| Obs# | Monitoring & scanning | Backup & DR | Specialized equipment cost | Specialized software cost | Totals |
|---------|-----------------------|-------------|----------------------------|---------------------------|-----------|
| 53 | | 312,741 | | | 614,947 |
| 54 | 56,090 | 62,527 | | 139,326 | 7,119,453 |
| 55 | | 104,414 | 20,114 | 191,245 | 3,483,952 |
| 56 | | 111,145 | | 151,502 | 2,551,314 |
| 57 | | 98,074 | | 856,485 | 2,596,187 |
| 58 | | 73,065 | | 142,760 | 1,583,910 |
| 59 | | 126,646 | | 111,385 | 1,225,631 |
| 60 | | 135,809 | | 25,472 | 1,805,634 |
| 61 | | 89,650 | | 622,375 | 3,019,922 |
| 62 | | 90,059 | | 216,949 | 1,644,553 |
| 63 | 89,123 | 134,097 | | 264,704 | 1,669,082 |
| 64 | | 148,836 | 170,752 | 357,704 | 2,539,427 |
| 65 | | 43,363 | | 159,658 | 1,304,018 |
| 66 | | 122,434 | | 679,221 | 1,850,430 |
| 67 | 33,576 | 108,463 | | | 1,905,217 |
| 68 | | 60,075 | 188,300 | 677,562 | 3,404,999 |
| 69 | | 95,324 | | 41,215 | 2,075,060 |
| 70 | | 46,188 | 61,481 | 234,033 | 1,786,446 |
| 71 | | 159,383 | | 123,392 | 378,618 |
| 72 | | 123,986 | | | 2,015,408 |
| 73 | 68,892 | 42,405 | 159,225 | 306,328 | 1,773,789 |
| 74 | | 62,140 | | 818,410 | 2,427,861 |
| 75 | | 316,538 | | 3,914 | 2,410,644 |
| 76 | | 70,098 | | 821,511 | 3,224,032 |
| 77 | | 99,293 | | 195,996 | 1,723,921 |
| 78 | 72,111 | 322,060 | | | 2,114,695 |
| 79 | | 93,181 | | 635,562 | 3,221,706 |
| 80 | | 127,128 | | 20,643 | 1,176,319 |
| 81 | | 110,465 | 10,866 | 102,481 | 1,834,929 |
| 82 | | 270,061 | | 181,150 | 799,159 |
| 83 | | 101,940 | | 111,595 | 1,918,910 |
| 84 | | 116,865 | 106,858 | 359,408 | 1,953,290 |
| 85 | | 305,431 | | | 560,166 |
| 86 | 88,760 | 107,827 | | 734,949 | 3,548,993 |
| 87 | | 99,270 | | 280,590 | 2,797,180 |
| 88 | | 115,514 | 136,852 | 265,174 | 1,906,400 |
| 89 | 65,780 | 41,506 | 47,112 | 342,424 | 1,863,566 |
| 90 | | 154,468 | | 629,259 | 1,596,553 |
| 91 | | 325,647 | | | 3,134,578 |
| 92 | | 129,577 | | 129,709 | 1,310,265 |
| 93 | | 77,940 | | 709,911 | 1,982,009 |
| 94 | 89,150 | 45,688 | 119,000 | 189,000 | 2,121,721 |
| Average | 94,349 | 126,604 | 222,707 | 353,117 | 2,157,476 |

Ponemon Institute

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