



BLACKLIST ECOSYSTEM ANALYSIS: 2016 UPDATE

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Executive Summary

This update, which is the latest in a series of regular updates, builds upon the analysis of blacklists presented in our 2013 and 2014 reports. In those reports, we established that the contents of blacklists generally fail to overlap substantially with each other [1, 2]. This report further corroborates that overarching result. Our results suggest that available blacklists present an incomplete and fragmented picture of the malicious infrastructure on the Internet, and practitioners should be aware of that insight. This result also provides a starting point for further investigation to understand the dynamics of the blacklist ecosystem.

We have included 123 lists in our latest analysis. This includes 88 IP-address-based lists and 35 domain-name-based lists. The number of indicators included on any individual list varies from under 1,000 to over 50 million. Our analysis covers the 18-month period from July 1, 2014 to December 31, 2015.

In this report, we revisit three of the metrics considered in the 2014 report to characterize overlaps: *reverse counts*, *list counts*, and *pairwise intersection counts*. We have omitted the *following* metric in order to give the issue of following a more complete treatment in a future report. We have added two new metrics: a *reverse lookup* metric to capture counts of domains seen being resolved in passive DNS, and a *persistence in blacklists* metric that captures persistence of IPs on blacklists over long spans of time.

Most indicators appear on a single list. Our analysis revealed that 86.6% of IP address indicators appear on exactly one of the lists included in the study. For domain name indicators, 93.7% appear on a single list. Additionally, in the case of domain-name-based lists, there are two distinct “clusters” of lists: 13 of the lists (out of 35) are populated in such a way that fewer than half of the domain names listed are active, while 18 of the 35 are populated such that 80% or more of their entries do resolve.

1 Motivation

This report is an update to a thread of investigation that started in 2012 that has so far resulted in two white papers [1, 2] and a conference publication [3]. Despite initial community skepticism, our result has been corroborated at least twice [4, 5]. Further, it has inspired some security tools to include lookups to nearly 100 blacklists to better cope with the observed fragmentation of the blacklist ecosystem [6]. As a result of the interest surrounding the project, we plan to publish regular updates.

By repeating this analysis, we also have the opportunity to develop new comparison techniques to characterize more precisely how the dynamics of the blacklist ecosystem are evolving. This update includes two new comparison techniques, which the following sections describe in more detail.

The real-world cause of the non-overlap of blacklists is not obvious. We hypothesize that two factors contribute to the differences among blacklists. First, each blacklist provider tailors its detection techniques to detect a particular behavior. Second, providers have different views of malicious behavior based on the vantage point afforded by their sensor networks. One empirical test of the sensor vantage hypothesis has been performed [7]. The results are consistent with the hypothesis that sensor vantage is part of the answer, but not the whole answer [8]. Other research into the specialization of the criminal ecosystem corroborates the conclusion that adversaries change their infrastructure based on their intended behavior [9, 10]. This would provide support for the other hypothesized cause for the fragmentation of the blacklist ecosystem, namely that detection methods are tailored precisely to a particular behavior.

The themes of secrecy and pragmatism, as usual, generate conflicting incentives that work against security practitioners. Blacklist curators do not disclose their list production method(s) or the sensor location(s), because doing so would generate a means for adversaries to keep themselves off blacklists. Vendors also have a strong economic incentive to keep the details of their technical approach secret from competitors. This reality causes difficulty for cybersecurity practitioners. As identified by Spring [11], in the game of internet security, the system architects and curators often have interests that do not align with those of the users of their service; the nature of the game prevents a solution from being calculated directly. Security practitioners need to be aware of these dynamics when making decisions about acquiring blacklists.

The study of quantifiable properties of the blacklist ecosystem aims to assist in navigating these difficulties. Because the main thrust of this work is extended analysis within that existing project, interested readers are encouraged to visit (or revisit) the previous entries in the series for thorough clarification in instances where such depth may be omitted here [1, 2, 3]. We have also published a case study investigating some possible causes of the fragmentation of the blacklist ecosystem as a blog post [7].

2 Method

The main comparison methods are unchanged from the previous installments, with the exception of the omission of the *following* metric and the addition of two new metrics. For the basic metrics (*reverse counts*, *list counts*, and *pairwise intersection counts*), the method for obtaining the results is summarized in subsections 2.1-2.3. These metrics are described in more detail in previous reports. Additionally, subsections 2.4 and 2.5 include the methods for two new analyses, which we call *reverse lookup* (2.4) and *persistence in blacklists* (2.5).

This update surveys all of the unique indicators in each included list for the 18 months spanning July 1, 2014 to December 31, 2015. This extends the timespan of the project as a whole to 48 continuous months.

We have added 38 new blacklists our data set. There are now 88 IP-address-based lists and 35 domain-name-based lists, increased from 67 and 18 (respectively) in the 2014 update. We have also removed all lists that contain fewer than 100 indicators, since lists of such relatively small size contribute little beyond outliers to the results of the analysis.

Every list receives an anonymized identification number prefaced with LI (for IP-address-based lists) or LD (for domain-name-based lists). The unique anonymized identification numbers denote the respective lists throughout the report. For each new update to the project, the anonymization labels are reassigned, partly because the addition of new lists and the removal of defunct lists would otherwise leave confusing gaps in the sequence of labels, and partly as a precautionary measure to maintain the anonymity of the lists over time.

As time passes the likelihood that an observed IP address will correspond to a different host (or network owner) will increase. This means that as we extend the time period covered by a particular intersection analysis, we can expect to overestimate overlap. Accounting for this overestimation strengthens our overall findings. This calculation was performed under the heading of “following” in our 2014 report, demonstrating that much overlap in extended time periods is in fact an artifact of the Internet architecture rather than genuine overlap between blacklists.

2.1 Reverse Counts

The *reverse count* refers to the number of lists on which a particular indicator (IP address or domain name) appears. The minimum number of lists on which an indicator can appear is one and the maximum number (in accordance with the lists surveyed for this update) is either 88 (for IP address indicators) or 35 (for domain name indicators).

2.2 List counts

The *list count* for each list refers to the size of each list; it is the cardinality of the set of unique indicators found on that list at any time during the surveyed time period. Taken within an individual report, the list counts are relatively limited in their capacity to contribute to the analysis. However, as the project

proceeds, the updating of the list counts offers the opportunity to examine trends, such as the growth rate of the average list count.

2.3 Pairwise Intersection Counts

The pairwise intersection count for any pair of lists describes the overlap between those two lists. Formally, the pairwise intersection count for each pair of lists is the cardinality of the intersection of the indicators contained on those two lists. IP-address-based lists are paired only with other IP-address-based lists, and domain-name-based lists are paired only with other domain-name-based lists. Given the 88 IP-address-based lists and 35 domain-name-based lists, there are $\binom{88}{2} = 3828$ IP-address-based list pairs and $\binom{35}{2} = 595$ domain-name-based list pairs.

2.4 Reverse Lookup

The reverse lookup analysis provides a sense of what proportion of a domain-name-based blacklist's contents are "active." Each blacklist is examined to determine how many of the domains on the list had active A records in a passive DNS data source we used for our study. A domain is deemed active if, for any time in the eighteen-month observation period, a sensor in our source's sensor network observed a host successfully doing the resolution. The queries are restricted to the eighteen months during which the blacklists were collected, which leaves open the possibility that the domain's status before or after the period of blacklist collection differs from its status during the collection period.

The design decision to limit the scope of the DNS lookups was made for two reasons. First, to reduce analysis time, and second, because expanding the scope beyond the blacklist collection time would make the interpretation of the results more difficult. Of course, no passive DNS source is absolute, so false negatives are a possibility. False negatives would manifest as domains that were active but were not observed as such. Although this is a significant concern, the data source has previously been analyzed for coverage and found to be reasonably diverse based on ASNs and countries represented [12].

2.5 Persistence in Blacklists

The project now includes four continuous years' worth of data collected over three sets, one for each of the released reports. This longevity affords the opportunity to derive statistics that measure the persistence of indicators over long stretches of time.

Our initial foray into persistence measurement—to be expanded in future reports—proceeds by compiling the union of all lists analyzed for each of the 2013, 2014, and 2016 (present) reports. Those "complete" sets are then pairwise-intersected with each other to provide a glimpse of the degree of overlap from report to report. The persistence is measured both absolutely and relatively. Absolute measurements are in terms of the cardinality of the intersection under consideration. Relative measurements are in terms of the percentage of indicators included, which is computed by dividing the number of indicators in the intersection by the cardinality of the smallest list under consideration.

3 Results

We corroborated the results from previous iterations of the project: there are relatively few indicators that many blacklists collectively identify (reverse counts), blacklists tend to vary substantially from each other in terms of the listed quantity of indicators (list counts), and there is great variation in terms of the amount of overlap between any two lists (pairwise intersections). Each of those items receives additional attention in a dedicated subsection in the remainder of this section.

We also include the results for the new reverse lookup and persistence analyses. In brief, the results of those two analyses demonstrate that domain-name-based lists vary substantially in terms of the percentage of domains that were ever resolved; for persistence, the continuity of indicators across long stretches of time is relatively low, although continuity is higher when temporally-adjacent sets of indicators are compared. This continuity result is expected, since there is genuine continuity between two sets of indicators that are adjacent to each other temporally.

3.1 Reverse Counts

IP-address-based lists presented 98,393,048 unique indicators and domain-name-based lists presented 95,253,081 unique indicators during the survey period. Interestingly, the number of IP addresses decreased by 23,528,461 when compared to the 2014 report, despite the fact that the 2014 report surveys only 15 months, compared to 18 months in the present report. The number of domain names, on the other hand, more than tripled, rising by 64,468,510 when compared to the 2014 report.

The results of the reverse count analysis are presented in Tables 1 and 2. In general, the results indicate that the vast majority of indicators that appear on lists—greater than 86% for IP-address-based lists and greater than 93% for domain-name-based lists—appear on just a single list.

As Table 1 indicates, greater than 86% of the IP addresses identified on blacklists appear on just a single list. This represents an increase of approximately 4% over the period surveyed in the 2014 report. This suggests that IP-address-based blacklists could be exhibiting slightly increased idiosyncrasy as the sample size of lists and the duration of observation increase. This holds true when considering indicators that appear on two or fewer lists, as well: that number is approximately 92.1% for the present analysis, whereas the number for the 2014 report was approximately 91.0%.

Lists	Count	Percentage	Lists	Count	Percentage
1	85250209	86.64251259	25	6856	0.00696797
2	5400614	5.48881665	26	5352	0.00543941
3	2422103	2.46166071	27	4024	0.00408972
4	1454180	1.47792962	28	3042	0.00309168
5	980892	0.99691190	29	2362	0.00240058
6	703831	0.71532594	30	1739	0.00176740
7	526520	0.53511911	31	1266	0.00128668
8	394815	0.40126311	32	896	0.00091063
9	295305	0.30012791	33	607	0.00061691
10	219959	0.22355136	34	461	0.00046853
11	165125	0.16782182	35	353	0.00035877
12	124578	0.12661260	36	253	0.00025713
13	94212	0.09575067	37	161	0.00016363
14	72822	0.07401133	38	130	0.00013212
15	56383	0.05730385	39	78	0.00007927
16	45341	0.04608151	40	58	0.00005895
17	36147	0.03673735	41	39	0.00003964
18	29293	0.02977141	42	23	0.00002338
19	24040	0.02443262	43	22	0.00002236
20	19693	0.02001463	44	14	0.00001423
21	16224	0.01648897	45	3	0.00000305
22	13371	0.01358937	46	9	0.00000915
23	10898	0.01107599	47	1	0.00000102
24	8741	0.00888376	48	3	0.00000305

Table 1 For the set of unique indicators that appear on any of the surveyed IP-address-based blacklists, the table displays the number of different blacklists that contain the listed number of indicators. Over 86% of indicators appear on exactly one list during the 18 months covered in this report.

In the case of domain names, the results trend very slightly in the opposite direction. As Table 2 indicates, greater than 93% of the domain names identified by blacklists appear on just a single blacklist. This represents a decrease of a bit more than 2% when compared to the 2014 report. Nonetheless, the results remain extremely skewed toward list diversity: when selecting indicators that appear on no more than two lists, approximately 98.4% of indicators satisfy the criterion. This number is very much in line with the figure reported for the same analysis in the 2014 report (approximately 98.7%).

Lists	Count	Percentage
1	89288684	93.73836842
2	4484809	4.70830860
3	906214	0.95137500
4	261065	0.27407512
5	133580	0.14023693
6	87718	0.09208941
7	53668	0.05634253
8	25082	0.02633196
9	8586	0.00901388
10	2749	0.00288600
11	706	0.00074118
12	189	0.00019842
13	22	0.00002310
14	2	0.00000210
15	6	0.00000630
16	1	0.00000105

Table 2 For the set of unique indicators that appear on any of the surveyed domain-name-based blacklists, the table displays the number of different blacklists that contain the listed number of indicators. Over 93% of indicators appear on exactly one list during the 18 months covered in this report.

3.2 List Counts

The list counts are displayed in Tables 3 and 4. For IP-address-based lists, the largest included in the project contains over 51 million indicators (LI_21) and the smallest contains 133 indicators (LI_45). Recall that any list with fewer than 100 indicators has been removed from the analysis. There were five removed IP-address-based lists, as well as five removed domain-name-based lists. For domain-name-based lists, the largest contains over 31 million indicators (LD_07), and the smallest contains 343 indicators (LD_35).

List	Unique Entries	List	Unique Entries	List	Unique Entries
LI_01	150958	LI_31	1828	LI_61	1248498
LI_02	25947	LI_32	2934	LI_62	9357
LI_03	124692	LI_33	185	LI_63	5494434
LI_04	7320	LI_34	1610992	LI_64	43416
LI_05	3418868	LI_35	70105	LI_65	6169005
LI_06	1323577	LI_36	1755	LI_66	3172
LI_07	55862	LI_37	55675	LI_67	33555
LI_08	3685995	LI_38	51295	LI_68	10593
LI_09	7756	LI_39	149104	LI_69	1387444
LI_10	4875935	LI_40	1240	LI_70	803693
LI_11	29256	LI_41	917	LI_71	591903
LI_12	40382	LI_42	135564	LI_72	1916004
LI_13	141	LI_43	79975	LI_73	1382157
LI_14	3823	LI_44	546009	LI_74	807
LI_15	511609	LI_45	133	LI_75	28038
LI_16	461673	LI_46	1981961	LI_76	854362
LI_17	312034	LI_47	1355	LI_77	2758208
LI_18	6913	LI_48	15614787	LI_78	1981
LI_19	837	LI_49	150	LI_79	232082
LI_20	324013	LI_50	3321	LI_80	118939
LI_21	51042927	LI_51	345064	LI_81	60703
LI_22	802405	LI_52	593140	LI_82	421591
LI_23	45662	LI_53	262453	LI_83	30315
LI_24	9131	LI_54	13166	LI_84	1945
LI_25	11073	LI_55	21729	LI_85	1939
LI_26	6091	LI_56	1056268	LI_86	22023298
LI_27	1796	LI_57	111098	LI_87	596095
LI_28	4968	LI_58	728973	LI_88	335811
LI_29	173590	LI_59	15830		
LI_30	3467427	LI_60	124		

Table 3 The number of unique entries included during the observation period for each list of IP addresses.

List	Unique Entries	List	Unique Entries
LD_01	423362	LD_19	2074
LD_02	7130924	LD_20	2294071
LD_03	7658	LD_21	32158
LD_04	53773	LD_22	17676657
LD_05	45804	LD_23	30080
LD_06	3008	LD_24	945641
LD_07	31688247	LD_25	560233
LD_08	40632	LD_26	6149121
LD_09	76241	LD_27	523102
LD_10	46012	LD_28	1938
LD_11	587	LD_29	4448
LD_12	40181	LD_30	492
LD_13	29247938	LD_31	1809
LD_14	725873	LD_32	141733
LD_15	5556933	LD_33	5377
LD_16	50206	LD_34	7967
LD_17	1951	LD_35	343
LD_18	390529		

Table 4 The number of unique entries included during the observation period for each list of domain names.

3.3 Pairwise Intersections

The full results of the pairwise intersection analysis are provided in the Appendices, owing to the considerable volume of entries. Appendix A contains the $\binom{88}{2} = 3828$ entries for the intersections of the IP-address-based lists, and Appendix B contains the $\binom{35}{2} = 595$ entries for the intersections of the domain-name-based lists.

3.4 Reverse Lookup

One noteworthy aspect of the reverse lookup analysis is that 13 of the lists (out of 35) are populated in such a way that fewer than half of the domain names listed are active. At the most extreme, four lists are populated *entirely* with domain names that are not active. On the other hand, about half of the lists—18 of the 35—are populated such that 80% or more of their entries do resolve. The full results are included in Table 5.

List	Active Domains	Percentage
LD_22	17676590	99.9996
LD_23	29267	97.2972
LD_05	43877	95.7929
LD_20	2163891	94.3254
LD_16	47313	94.2377
LD_08	37919	93.3230
LD_14	667465	91.9534
LD_21	29396	91.4112
LD_03	6878	89.8146
LD_12	35954	89.4801
LD_29	3976	89.3885
LD_24	840535	88.8852
LD_28	1715	88.4933
LD_17	1580	87.2928
LD_34	6875	86.2935
LD_33	4453	82.8157
LD_27	420359	80.3589
LD_32	112620	79.4593

List	Active Domains	Percentage
LD_06	2286	75.9973
LD_09	57885	75.9237
LD_02	5179270	72.6311
LD_04	31737	59.0203
LD_26	2767828	45.0118
LD_25	231250	41.2775
LD_18	160890	41.1980
LD_31	608	33.6097
LD_01	106747	25.2141
LD_07	3915288	12.3556
LD_35	27	7.8717
LD_13	573327	1.9602
LD_19	10	0.4822
LD_10	0	0.0000
LD_11	0	0.0000
LD_15	0	0.0000
LD_30	0	0.0000

Table 5 The number of active domains (and corresponding percentage of active list indicators) included in each list of domain names.

Inactive domains could derive from a variety of genuine causes, as opposed to spurious causes like the incomplete sensor coverage hypothesis discussed in Section 2. For example, it may be the case that certain list curators do not remove domains from their lists. Under the assumption that a list is effective, a malicious domain will become inactive sometime after the list includes it. However, the lack of machines visiting a domain does not necessarily mean that it is no longer malicious, nor does it preclude the possibility that benign actors have acquired administrative control over the domain. A domain registration is usually valid for a year or two before renewal is necessary, so unless defenders complete the expensive and slow (and thus uncommon) process of legally seizing the domain administrative rights from the adversary, an inactive domain may remain in the adversary’s arsenal for the duration of the common registration period. Thus, listing domains previously known to be malicious, but which currently are inactive, does not necessarily indicate bad list curation. Furthermore, some lists intentionally curate domains which never have been and never will be looked up, as was the case with the Conficker Working Group and the reverse engineering of the domain generation algorithm that the botnet authors attempt to use to regain control of the botnet [13]. All of this means that it is unwise to draw sweeping conclusions about the health or usefulness of a blacklist from its active domain measurement alone.

3.5 Persistence in Blacklists

The persistence results require the inclusion of a caveat. The datasets associated with the 2013 report covered 15 months of data acquisition, as did the 2014 report. The present report, labeled “2016” in the following tables, covers 18 months. It is possible that the asymmetry of collection duration skews the results presented here. However, such skewing could only occur if, during the final three months of the collection period for the 2016 dataset, the data collected differed significantly with respect its overlap (or lack thereof) with the initial 15 months of the 2016 collection period. In future reports, this concern could be eliminated by renormalizing the full 48-month dataset (plus the additional data included in such future reports) into sets based on equal collection durations. This option is available since the data collection has been continuous up to the present.

The total number of unique identifiers of each type, for each collection period, are listed in Table 6.

Report	Unique Indicators			
	IP Addresses	Lists	Domain Names	Lists
2013	68753164	19	15831248	10
2014	121921509	67	30784571	18
2016	98393048	88	95253081	35

Table 6 The number of unique indicators of each respective type (IP address or domain name) appearing in the dataset for each report.

The results of intersecting the datasets from each of the three reports are listed in Table 7. It appears to be the case, as would be expected, that the size of the intersection between two datasets decreases as those datasets become further apart in time.

Report	Unique Indicators		Percentage Overlap	
	IP Addresses	Domain Names	IP Ad-	Domain
2013 \cap 2014	11823629	1202465	17.19721437	6.45852431
2013 \cap 2016	10707560	221364	15.57391599	1.39827258
2014 \cap 2016	17495937	3343068	17.78168006	10.85955689
2013 \cap 2014 \cap 2016	4427226	38204	6.43930510	0.24132020

Table 7 The “Unique Indicators” column provides the cardinality of the set created by intersecting the sets of unique indicators of each respective type (IP address or domain name) over the indicated datasets. The “Percentage Overlap” column provides the percentage of overlap between the unique indicators appearing in the indicated datasets for each respective type (IP address or domain name).

Finally, Table 7 also displays the percentage of indicators that appear in each of the possible intersections of the three datasets. Recall that these figures are computed by dividing the number of indicators in the intersection (i.e., the values listed in Table 6) by the cardinality of the *smallest* dataset involved

in the intersection (i.e., the values listed in Table 5). A value of 100%, therefore, would correspond to every indicator in the smallest considered dataset being included in the intersection under investigation.

Conclusion

This report, which investigates the current state of the blacklist ecosystem, reinforces the results of the previous two reports. The lists that have been studied do not present a single unified view of malicious activity. For a comprehensive blacklist solution, the best option for practitioners is to select relevant lists based upon the malicious activity tracked by the lists. The diversity of lists suggests that there is some value in acquiring as many lists as possible given available resources. There are a number of tools available to CND operations for effectively managing these lists [6]. The results of our study provide some support for the practice of using blacklists as just one of many data sources that inform sensing, blocking, and analysis.

An important takeaway from this report is that academic researchers who use blacklists to prove the accuracy of their methods must be careful when reporting their results. Since most lists do not intersect, the rate of intersection used by the researcher to draw conclusions must be considered carefully. Additionally, the selection of lists by the researcher is important, since most public lists do not intersect and we remain disconnected from knowing the list creation process. A researcher using a list could be merely repeating the methods used to create the list, rather than producing novel results.

It is unclear why any given pair of blacklists agree or disagree with each other in terms of the indicators included. One credible explanation is that each provider of a blacklist has a particular view into malicious activity, and only when sharing the same view will providers populate their lists with shared indicators. Further research is required in order to test this hypothesis robustly. In future projects, we hope to isolate the factors that may cause the disparity in the blacklists.

Errata

Beginning with this 2016 report, the errata section will contain a list of errors and corrections found in the previous reports in the project.

In Section 2.3 of the 2014 report, the number of pairings for the pairwise intersection counts was listed incorrectly [2]. For the domain-name-based lists, 152 (not 162) list pairs were analyzed, and for IP-address-based lists, 2211 (not 2244) list pairs were analyzed.

In the 2014 report, the caption for Table 4 was incorrect [2]. It should read “Unique entries over the observation period for each list of IP addresses.”

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References

- [1] B. L. Metcalf and J. M. Spring, "Everything you wanted to know about blacklists but were afraid to ask," Software Engineering Institute, CERT Coordination Center, Pittsburgh, PA, Tech. Rep. CERTCC-2013-39, 2013. [Online]. Available: <http://resources.sei.cmu.edu/library/asset-view.cfm?assetID=83438>.
- [2] L. Metcalf and J. M. Spring, "Blacklist Ecosystem Analysis Update: 2014," Software Engineering Institute, CERT Coordination Center, Pittsburgh, PA, Tech. Rep. CERTCC-2014-82, 2014. [Online]. Available: <http://resources.sei.cmu.edu/library/asset-view.cfm?assetid=428609>.
- [3] L. Metcalf and J. M. Spring, "Blacklist Ecosystem Analysis: Spanning Jan 2012 to Jun 2014," in *WICS 2015: 2nd International Workshop on Information and Communication Security*, Denver, CO, USA, 2015.
- [4] M. Kührer, C. Rossow and T. Holz, "Paint it Black: Evaluating the Effectiveness of Malware Blacklists," in *17th International Symposium, Research in Attacks, Intrusions, and Defenses 2014*, Gothenburg, Sweden, 2014.
- [5] Verizon, "2015 Data Breach Investigations Report," Verizon, 2015. [Online]. Available: <http://www.verizonenterprise.com/DBIR/2015/>.
- [6] "Critical Stack," [Online]. Available: <https://intel.criticalstack.com/>.
- [7] J. Spring, "Domain Blacklist Ecosystem - A Case Study," CERT Coordination Center Blog, 2015. [Online]. Available: <https://insights.sei.cmu.edu/cert/2015/06/domain-blacklist-ecosystem---a-case-study.html>.
- [8] M. Collins, "Using Vantage to Manage Complex Sensor Networks," Software Engineering Institute, CERT Coordination Center, 2015. [Online]. Available: <http://resources.sei.cmu.edu/library/asset-view.cfm?assetID=431300>.
- [9] A. K. Sood and R. J. Enbody, "Crimeware-as-a-service: A survey of commoditized crimeware in the underground market," *International Journal of Critical Infrastructure Protection*, vol. 6, pp. 28-38, 2013.
- [10] C. Grier, L. Ballard, J. Caballero, N. Chachra, C. J. Dietrich, K. Levchenko, P. Mavrommatis, D. McCoy, A. Nappa, A. Pitsillidis, N. Provos, M. Z. Rafique, M. Abu Rajab, C. Rossow, K. Thomas, V. Paxson, S. Savage and G. M. Voelker, "Manufacturing Compromise: The

Emergence of Exploit-as-a-Service," in *CCS '12: Proceedings of the 2012 ACM Conference on Computer and Communications Security*, Raleigh, North Carolina, USA, 2012.

- [11] J. M. Spring, "Toward Realistic Modeling Criteria of Games in Internet Security," *Journal of Cyber Security and Information Systems*, vol. 2, no. 2, pp. 2-12, 2014.
- [12] J. M. Spring, L. Metcalf and E. Stoner, "Correlating Domain Registrations and DNS First Activity in General and for Malware," in *Securing and Trusting Internet Names, SATIN 2011*, Teddington, United Kingdom, 2011.
- [13] The Rendon Group, "Conficker Working Group: Lessons Learned," 2011. [Online]. Available: http://www.confickerworkinggroup.org/wiki/uploads/Conficker_Working_Group_Lessons_Learned_17_June_2010_final.pdf.

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Appendix A

Blacklist 1	Blacklist 2	Count	Percentage
LI_01	LI_02	282	1.0868%
LI_01	LI_03	1046	0.8389%
LI_01	LI_04	1	0.0137%
LI_01	LI_05	27350	18.1176%
LI_01	LI_06	20701	13.7131%
LI_01	LI_07	901	1.6129%
LI_01	LI_08	9053	5.9970%
LI_01	LI_09	0	0.0000%
LI_01	LI_10	44034	29.1697%
LI_01	LI_11	59	0.2017%
LI_01	LI_12	481	1.1911%
LI_01	LI_13	1	0.7092%
LI_01	LI_14	59	1.5433%
LI_01	LI_15	5298	3.5096%
LI_01	LI_16	2118	1.4030%
LI_01	LI_17	4467	2.9591%
LI_01	LI_18	2	0.0289%
LI_01	LI_19	0	0.0000%
LI_01	LI_20	11	0.0073%
LI_01	LI_21	15413	10.2101%
LI_01	LI_22	8443	5.5929%
LI_01	LI_23	202	0.4424%
LI_01	LI_24	57	0.6242%
LI_01	LI_25	0	0.0000%
LI_01	LI_26	1	0.0164%
LI_01	LI_27	3	0.1670%
LI_01	LI_28	121	2.4356%
LI_01	LI_29	3235	2.1430%
LI_01	LI_30	40193	26.6253%
LI_01	LI_31	2	0.1094%
LI_01	LI_32	1	0.0341%
LI_01	LI_33	0	0.0000%
LI_01	LI_34	7942	5.2611%
LI_01	LI_35	1552	2.2138%
LI_01	LI_36	38	2.1652%
LI_01	LI_37	606	1.0885%

Blacklist 1	Blacklist 2	Count	Percentage
LI.01	LI.38	21	0.0409%
LI.01	LI.39	3464	2.3232%
LI.01	LI.40	0	0.0000%
LI.01	LI.41	1	0.1091%
LI.01	LI.42	133	0.0981%
LI.01	LI.43	471	0.5889%
LI.01	LI.44	3501	2.3192%
LI.01	LI.45	38	28.5714%
LI.01	LI.46	27256	18.0554%
LI.01	LI.47	1	0.0738%
LI.01	LI.48	96305	63.7959%
LI.01	LI.49	3	2.0000%
LI.01	LI.50	57	1.7164%
LI.01	LI.51	2724	1.8045%
LI.01	LI.52	6360	4.2131%
LI.01	LI.53	2569	1.7018%
LI.01	LI.54	84	0.6380%
LI.01	LI.55	18	0.0828%
LI.01	LI.56	5234	3.4672%
LI.01	LI.57	50	0.0450%
LI.01	LI.58	87	0.0576%
LI.01	LI.59	623	3.9356%
LI.01	LI.60	0	0.0000%
LI.01	LI.61	15202	10.0704%
LI.01	LI.62	114	1.2183%
LI.01	LI.63	34698	22.9852%
LI.01	LI.64	1538	3.5425%
LI.01	LI.65	50000	33.1218%
LI.01	LI.66	1	0.0315%
LI.01	LI.67	378	1.1265%
LI.01	LI.68	0	0.0000%
LI.01	LI.69	9266	6.1381%
LI.01	LI.70	13018	8.6236%
LI.01	LI.71	2536	1.6799%
LI.01	LI.72	280	0.1855%
LI.01	LI.73	46778	30.9874%
LI.01	LI.74	73	9.0458%
LI.01	LI.75	1106	3.9446%
LI.01	LI.76	8638	5.7221%

Blacklist 1	Blacklist 2	Count	Percentage
LI_01	LI_77	24621	16.3098%
LI_01	LI_78	69	3.4831%
LI_01	LI_79	2334	1.5461%
LI_01	LI_80	1954	1.6429%
LI_01	LI_81	133	0.2191%
LI_01	LI_82	5437	3.6017%
LI_01	LI_83	50	0.1649%
LI_01	LI_84	3	0.1542%
LI_01	LI_85	8	0.4126%
LI_01	LI_86	26	0.0172%
LI_01	LI_87	2	0.0013%
LI_01	LI_88	1432	0.9486%
LI_02	LI_03	506	1.9501%
LI_02	LI_04	448	6.1202%
LI_02	LI_05	12470	48.0595%
LI_02	LI_06	9434	36.3587%
LI_02	LI_07	3024	11.6545%
LI_02	LI_08	5189	19.9985%
LI_02	LI_09	1	0.0129%
LI_02	LI_10	4879	18.8037%
LI_02	LI_11	1233	4.7520%
LI_02	LI_12	1124	4.3319%
LI_02	LI_13	0	0.0000%
LI_02	LI_14	330	8.6320%
LI_02	LI_15	1634	6.2975%
LI_02	LI_16	10034	38.6711%
LI_02	LI_17	5265	20.2914%
LI_02	LI_18	215	3.1101%
LI_02	LI_19	0	0.0000%
LI_02	LI_20	0	0.0000%
LI_02	LI_21	10490	40.4286%
LI_02	LI_22	13510	52.0677%
LI_02	LI_23	1436	5.5344%
LI_02	LI_24	41	0.4490%
LI_02	LI_25	0	0.0000%
LI_02	LI_26	420	6.8954%
LI_02	LI_27	4	0.2227%
LI_02	LI_28	1240	24.9597%
LI_02	LI_29	4411	17.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI.02	LI.30	13371	51.5320%
LI.02	LI.31	1	0.0547%
LI.02	LI.32	0	0.0000%
LI.02	LI.33	6	3.2432%
LI.02	LI.34	17533	67.5724%
LI.02	LI.35	3891	14.9960%
LI.02	LI.36	302	17.2080%
LI.02	LI.37	1713	6.6019%
LI.02	LI.38	0	0.0000%
LI.02	LI.39	604	2.3278%
LI.02	LI.40	0	0.0000%
LI.02	LI.41	8	0.8724%
LI.02	LI.42	126	0.4856%
LI.02	LI.43	1548	5.9660%
LI.02	LI.44	7179	27.6679%
LI.02	LI.45	15	11.2782%
LI.02	LI.46	8948	34.4857%
LI.02	LI.47	2	0.1476%
LI.02	LI.48	18031	69.4917%
LI.02	LI.49	18	12.0000%
LI.02	LI.50	333	10.0271%
LI.02	LI.51	8088	31.1712%
LI.02	LI.52	5988	23.0778%
LI.02	LI.53	2204	8.4942%
LI.02	LI.54	1460	11.0892%
LI.02	LI.55	26	0.1197%
LI.02	LI.56	15437	59.4944%
LI.02	LI.57	49	0.1888%
LI.02	LI.58	973	3.7500%
LI.02	LI.59	730	4.6115%
LI.02	LI.60	0	0.0000%
LI.02	LI.61	6508	25.0819%
LI.02	LI.62	153	1.6351%
LI.02	LI.63	11891	45.8280%
LI.02	LI.64	3556	13.7049%
LI.02	LI.65	17936	69.1255%
LI.02	LI.66	7	0.2207%
LI.02	LI.67	2706	10.4290%
LI.02	LI.68	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI_02	LI.69	20302	78.2441%
LI_02	LI.70	3380	13.0266%
LI_02	LI.71	12331	47.5238%
LI_02	LI.72	1276	4.9177%
LI_02	LI.73	3947	15.2118%
LI_02	LI.74	169	20.9418%
LI_02	LI.75	1056	4.0698%
LI_02	LI.76	19738	76.0705%
LI_02	LI.77	20280	78.1593%
LI_02	LI.78	13	0.6562%
LI_02	LI.79	6629	25.5482%
LI_02	LI.80	3747	14.4410%
LI_02	LI.81	3240	12.4870%
LI_02	LI.82	7917	30.5122%
LI_02	LI.83	4928	18.9926%
LI_02	LI.84	4	0.2057%
LI_02	LI.85	76	3.9195%
LI_02	LI.86	116	0.4471%
LI_02	LI.87	1	0.0039%
LI_02	LI.88	11785	45.4195%
LI_03	LI.04	0	0.0000%
LI_03	LI.05	27419	21.9894%
LI_03	LI.06	15512	12.4403%
LI_03	LI.07	2343	4.1943%
LI_03	LI.08	13933	11.1739%
LI_03	LI.09	1	0.0129%
LI_03	LI.10	32224	25.8429%
LI_03	LI.11	157	0.5366%
LI_03	LI.12	944	2.3377%
LI_03	LI.13	0	0.0000%
LI_03	LI.14	91	2.3803%
LI_03	LI.15	6214	4.9835%
LI_03	LI.16	7264	5.8256%
LI_03	LI.17	7812	6.2650%
LI_03	LI.18	0	0.0000%
LI_03	LI.19	1	0.1195%
LI_03	LI.20	5	0.0040%
LI_03	LI.21	24740	19.8409%
LI_03	LI.22	13085	10.4939%

Blacklist 1	Blacklist 2	Count	Percentage
LI.03	LI.23	492	1.0775%
LI.03	LI.24	3715	40.6856%
LI.03	LI.25	2	0.0181%
LI.03	LI.26	0	0.0000%
LI.03	LI.27	13	0.7238%
LI.03	LI.28	273	5.4952%
LI.03	LI.29	4514	3.6201%
LI.03	LI.30	26466	21.2251%
LI.03	LI.31	9	0.4923%
LI.03	LI.32	0	0.0000%
LI.03	LI.33	4	2.1622%
LI.03	LI.34	9194	7.3734%
LI.03	LI.35	3145	4.4861%
LI.03	LI.36	137	7.8063%
LI.03	LI.37	950	1.7063%
LI.03	LI.38	1	0.0019%
LI.03	LI.39	1770	1.4195%
LI.03	LI.40	8	0.6452%
LI.03	LI.41	2	0.2181%
LI.03	LI.42	943	0.7563%
LI.03	LI.43	948	1.1854%
LI.03	LI.44	5794	4.6466%
LI.03	LI.45	48	36.0902%
LI.03	LI.46	20697	16.5985%
LI.03	LI.47	41	3.0258%
LI.03	LI.48	46148	37.0096%
LI.03	LI.49	0	0.0000%
LI.03	LI.50	183	5.5104%
LI.03	LI.51	5392	4.3243%
LI.03	LI.52	5082	4.0756%
LI.03	LI.53	8491	6.8096%
LI.03	LI.54	271	2.0583%
LI.03	LI.55	144	0.6627%
LI.03	LI.56	9988	8.0101%
LI.03	LI.57	437	0.3933%
LI.03	LI.58	27	0.0217%
LI.03	LI.59	1708	10.7896%
LI.03	LI.60	0	0.0000%
LI.03	LI.61	12153	9.7464%

Blacklist 1	Blacklist 2	Count	Percentage
LI_03	LI.62	3194	34.1349%
LI_03	LI.63	25301	20.2908%
LI_03	LI.64	2453	5.6500%
LI_03	LI.65	30620	24.5565%
LI_03	LI.66	34	1.0719%
LI_03	LI.67	806	2.4020%
LI_03	LI.68	2	0.0189%
LI_03	LI.69	10570	8.4769%
LI_03	LI.70	16468	13.2069%
LI_03	LI.71	11212	8.9918%
LI_03	LI.72	2213	1.7748%
LI_03	LI.73	17484	14.0217%
LI_03	LI.74	115	14.2503%
LI_03	LI.75	2666	9.5085%
LI_03	LI.76	12518	10.0391%
LI_03	LI.77	14638	11.7393%
LI_03	LI.78	50	2.5240%
LI_03	LI.79	5170	4.1462%
LI_03	LI.80	2296	1.9304%
LI_03	LI.81	383	0.6309%
LI_03	LI.82	7034	5.6411%
LI_03	LI.83	17	0.0561%
LI_03	LI.84	2	0.1028%
LI_03	LI.85	4	0.2063%
LI_03	LI.86	1028	0.8244%
LI_03	LI.87	2	0.0016%
LI_03	LI.88	3604	2.8903%
LI_04	LI.05	252	3.4426%
LI_04	LI.06	15	0.2049%
LI_04	LI.07	31	0.4235%
LI_04	LI.08	116	1.5847%
LI_04	LI.09	1	0.0137%
LI_04	LI.10	35	0.4781%
LI_04	LI.11	240	3.2787%
LI_04	LI.12	176	2.4044%
LI_04	LI.13	0	0.0000%
LI_04	LI.14	14	0.3662%
LI_04	LI.15	0	0.0000%
LI_04	LI.16	3735	51.0246%

Blacklist 1	Blacklist 2	Count	Percentage
LI_04	LI.17	104	1.4208%
LI_04	LI.18	160	2.3145%
LI_04	LI.19	0	0.0000%
LI_04	LI.20	0	0.0000%
LI_04	LI.21	2702	36.9126%
LI_04	LI.22	4546	62.1038%
LI_04	LI.23	72	0.9836%
LI_04	LI.24	1	0.0137%
LI_04	LI.25	0	0.0000%
LI_04	LI.26	5241	86.0450%
LI_04	LI.27	0	0.0000%
LI_04	LI.28	73	1.4694%
LI_04	LI.29	48	0.6557%
LI_04	LI.30	254	3.4699%
LI_04	LI.31	0	0.0000%
LI_04	LI.32	0	0.0000%
LI_04	LI.33	0	0.0000%
LI_04	LI.34	2524	34.4809%
LI_04	LI.35	31	0.4235%
LI_04	LI.36	11	0.6268%
LI_04	LI.37	185	2.5273%
LI_04	LI.38	0	0.0000%
LI_04	LI.39	1	0.0137%
LI_04	LI.40	0	0.0000%
LI_04	LI.41	1	0.1091%
LI_04	LI.42	0	0.0000%
LI_04	LI.43	2	0.0273%
LI_04	LI.44	1984	27.1038%
LI_04	LI.45	1	0.7519%
LI_04	LI.46	40	0.5464%
LI_04	LI.47	0	0.0000%
LI_04	LI.48	188	2.5683%
LI_04	LI.49	2	1.3333%
LI_04	LI.50	2	0.0602%
LI_04	LI.51	2858	39.0437%
LI_04	LI.52	238	3.2514%
LI_04	LI.53	17	0.2322%
LI_04	LI.54	65	0.8880%
LI_04	LI.55	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI.04	LI.56	5425	74.1120%
LI.04	LI.57	0	0.0000%
LI.04	LI.58	191	2.6093%
LI.04	LI.59	2	0.0273%
LI.04	LI.60	0	0.0000%
LI.04	LI.61	3	0.0410%
LI.04	LI.62	3	0.0410%
LI.04	LI.63	385	5.2596%
LI.04	LI.64	1	0.0137%
LI.04	LI.65	1706	23.3060%
LI.04	LI.66	0	0.0000%
LI.04	LI.67	292	3.9891%
LI.04	LI.68	0	0.0000%
LI.04	LI.69	7002	95.6557%
LI.04	LI.70	13	0.1776%
LI.04	LI.71	25	0.3415%
LI.04	LI.72	2	0.0273%
LI.04	LI.73	47	0.6421%
LI.04	LI.74	0	0.0000%
LI.04	LI.75	19	0.2596%
LI.04	LI.76	4215	57.5820%
LI.04	LI.77	3104	42.4044%
LI.04	LI.78	1	0.0505%
LI.04	LI.79	193	2.6366%
LI.04	LI.80	7	0.0956%
LI.04	LI.81	785	10.7240%
LI.04	LI.82	566	7.7322%
LI.04	LI.83	2851	38.9481%
LI.04	LI.84	0	0.0000%
LI.04	LI.85	1	0.0516%
LI.04	LI.86	0	0.0000%
LI.04	LI.87	0	0.0000%
LI.04	LI.88	3318	45.3279%
LI.05	LI.06	757079	57.1995%
LI.05	LI.07	32828	58.7662%
LI.05	LI.08	811214	23.7276%
LI.05	LI.09	1	0.0129%
LI.05	LI.10	1509307	44.1464%
LI.05	LI.11	13444	45.9530%

Blacklist 1	Blacklist 2	Count	Percentage
LI_05	LI_12	19648	48.6553%
LI_05	LI_13	0	0.0000%
LI_05	LI_14	2545	66.5708%
LI_05	LI_15	162531	31.7686%
LI_05	LI_16	150078	32.5074%
LI_05	LI_17	210434	67.4394%
LI_05	LI_18	1397	20.2083%
LI_05	LI_19	38	4.5400%
LI_05	LI_20	265	0.0818%
LI_05	LI_21	517583	15.1390%
LI_05	LI_22	429426	53.5174%
LI_05	LI_23	33022	72.3183%
LI_05	LI_24	789	8.6409%
LI_05	LI_25	22	0.1987%
LI_05	LI_26	234	3.8417%
LI_05	LI_27	163	9.0757%
LI_05	LI_28	2338	47.0612%
LI_05	LI_29	96936	55.8419%
LI_05	LI_30	1417786	41.4695%
LI_05	LI_31	135	7.3851%
LI_05	LI_32	8	0.2727%
LI_05	LI_33	155	83.7838%
LI_05	LI_34	395818	24.5698%
LI_05	LI_35	48455	69.1178%
LI_05	LI_36	1183	67.4074%
LI_05	LI_37	18772	33.7171%
LI_05	LI_38	364	0.7096%
LI_05	LI_39	55602	37.2908%
LI_05	LI_40	125	10.0806%
LI_05	LI_41	161	17.5573%
LI_05	LI_42	19735	14.5577%
LI_05	LI_43	22605	28.2651%
LI_05	LI_44	209807	38.4256%
LI_05	LI_45	123	92.4812%
LI_05	LI_46	802332	40.4817%
LI_05	LI_47	52	3.8376%
LI_05	LI_48	2444832	71.5100%
LI_05	LI_49	85	56.6667%
LI_05	LI_50	1550	46.6727%

Blacklist 1	Blacklist 2	Count	Percentage
LI.05	LI.51	171013	49.5598%
LI.05	LI.52	273499	46.1104%
LI.05	LI.53	143284	54.5942%
LI.05	LI.54	4702	35.7132%
LI.05	LI.55	1318	6.0656%
LI.05	LI.56	513314	48.5969%
LI.05	LI.57	4771	4.2944%
LI.05	LI.58	1789	0.2454%
LI.05	LI.59	13285	83.9229%
LI.05	LI.60	0	0.0000%
LI.05	LI.61	630934	50.5354%
LI.05	LI.62	1308	13.9788%
LI.05	LI.63	1362000	39.8377%
LI.05	LI.64	37667	86.7583%
LI.05	LI.65	1711519	50.0610%
LI.05	LI.66	386	12.1690%
LI.05	LI.67	24728	73.6939%
LI.05	LI.68	22	0.2077%
LI.05	LI.69	562426	40.5368%
LI.05	LI.70	404578	50.3399%
LI.05	LI.71	233078	39.3777%
LI.05	LI.72	34709	1.8115%
LI.05	LI.73	486839	35.2231%
LI.05	LI.74	556	68.8971%
LI.05	LI.75	22191	79.1462%
LI.05	LI.76	339828	39.7756%
LI.05	LI.77	943724	34.2151%
LI.05	LI.78	1272	64.2100%
LI.05	LI.79	148857	64.1398%
LI.05	LI.80	74829	62.9138%
LI.05	LI.81	14773	24.3365%
LI.05	LI.82	255193	60.5309%
LI.05	LI.83	1239	4.0871%
LI.05	LI.84	91	4.6787%
LI.05	LI.85	1216	62.7127%
LI.05	LI.86	11394	0.3333%
LI.05	LI.87	35	0.0059%
LI.05	LI.88	119537	35.5965%
LI.06	LI.07	23374	41.8424%

Blacklist 1	Blacklist 2	Count	Percentage
LI_06	LI_08	431768	32.6213%
LI_06	LI_09	1	0.0129%
LI_06	LI_10	797159	60.2276%
LI_06	LI_11	8808	30.1066%
LI_06	LI_12	8720	21.5938%
LI_06	LI_13	1	0.7092%
LI_06	LI_14	2116	55.3492%
LI_06	LI_15	122459	23.9361%
LI_06	LI_16	80899	17.5230%
LI_06	LI_17	149788	48.0037%
LI_06	LI_18	5	0.0723%
LI_06	LI_19	13	1.5532%
LI_06	LI_20	100	0.0309%
LI_06	LI_21	191685	14.4823%
LI_06	LI_22	276235	34.4259%
LI_06	LI_23	29249	64.0555%
LI_06	LI_24	393	4.3040%
LI_06	LI_25	9	0.0813%
LI_06	LI_26	8	0.1313%
LI_06	LI_27	61	3.3964%
LI_06	LI_28	1820	36.6345%
LI_06	LI_29	58597	33.7560%
LI_06	LI_30	870442	65.7644%
LI_06	LI_31	57	3.1182%
LI_06	LI_32	1	0.0341%
LI_06	LI_33	74	40.0000%
LI_06	LI_34	272377	20.5789%
LI_06	LI_35	32640	46.5587%
LI_06	LI_36	1056	60.1709%
LI_06	LI_37	12772	22.9403%
LI_06	LI_38	155	0.3022%
LI_06	LI_39	35797	24.0081%
LI_06	LI_40	95	7.6613%
LI_06	LI_41	117	12.7590%
LI_06	LI_42	11230	8.2839%
LI_06	LI_43	16142	20.1838%
LI_06	LI_44	119485	21.8833%
LI_06	LI_45	119	89.4737%
LI_06	LI_46	470203	35.5252%

Blacklist 1	Blacklist 2	Count	Percentage
LI_06	LI_47	26	1.9188%
LI_06	LI_48	1160820	87.7032%
LI_06	LI_49	61	40.6667%
LI_06	LI_50	1010	30.4125%
LI_06	LI_51	110320	31.9709%
LI_06	LI_52	148215	24.9882%
LI_06	LI_53	112386	42.8214%
LI_06	LI_54	2978	22.6189%
LI_06	LI_55	755	3.4746%
LI_06	LI_56	337449	31.9473%
LI_06	LI_57	2950	2.6553%
LI_06	LI_58	784	0.1075%
LI_06	LI_59	8946	56.5130%
LI_06	LI_60	0	0.0000%
LI_06	LI_61	432050	34.6056%
LI_06	LI_62	825	8.8169%
LI_06	LI_63	762937	57.6421%
LI_06	LI_64	34826	80.2147%
LI_06	LI_65	945807	71.4584%
LI_06	LI_66	133	4.1929%
LI_06	LI_67	22680	67.5905%
LI_06	LI_68	9	0.0850%
LI_06	LI_69	370336	27.9799%
LI_06	LI_70	279170	34.7359%
LI_06	LI_71	114273	19.3060%
LI_06	LI_72	18767	1.4179%
LI_06	LI_73	316833	23.9376%
LI_06	LI_74	519	64.3123%
LI_06	LI_75	15762	56.2166%
LI_06	LI_76	196625	23.0142%
LI_06	LI_77	694153	52.4452%
LI_06	LI_78	748	37.7587%
LI_06	LI_79	106584	45.9251%
LI_06	LI_80	60233	50.6419%
LI_06	LI_81	9772	16.0981%
LI_06	LI_82	191792	45.4924%
LI_06	LI_83	213	0.7026%
LI_06	LI_84	46	2.3650%
LI_06	LI_85	480	24.7550%

Blacklist 1	Blacklist 2	Count	Percentage
LI_06	LI_86	2908	0.2197%
LI_06	LI_87	29	0.0049%
LI_06	LI_88	71133	21.1825%
LI_07	LI_08	14917	26.7033%
LI_07	LI_09	1	0.0129%
LI_07	LI_10	36144	64.7023%
LI_07	LI_11	761	2.6012%
LI_07	LI_12	1976	4.8933%
LI_07	LI_13	0	0.0000%
LI_07	LI_14	352	9.2074%
LI_07	LI_15	7400	13.2469%
LI_07	LI_16	6357	11.3798%
LI_07	LI_17	19642	35.1616%
LI_07	LI_18	7	0.1013%
LI_07	LI_19	1	0.1195%
LI_07	LI_20	6	0.0107%
LI_07	LI_21	17558	31.4310%
LI_07	LI_22	35766	64.0256%
LI_07	LI_23	1870	4.0953%
LI_07	LI_24	157	1.7194%
LI_07	LI_25	2	0.0181%
LI_07	LI_26	26	0.4269%
LI_07	LI_27	6	0.3341%
LI_07	LI_28	1346	27.0934%
LI_07	LI_29	7258	12.9927%
LI_07	LI_30	41806	74.8380%
LI_07	LI_31	4	0.2188%
LI_07	LI_32	0	0.0000%
LI_07	LI_33	7	3.7838%
LI_07	LI_34	20645	36.9571%
LI_07	LI_35	6215	11.1256%
LI_07	LI_36	763	43.4758%
LI_07	LI_37	3954	7.1019%
LI_07	LI_38	1	0.0019%
LI_07	LI_39	2794	5.0016%
LI_07	LI_40	1	0.0806%
LI_07	LI_41	5	0.5453%
LI_07	LI_42	244	0.4368%
LI_07	LI_43	1659	2.9698%

Blacklist 1	Blacklist 2	Count	Percentage
LI.07	LI.44	17086	30.5861%
LI.07	LI.45	75	56.3910%
LI.07	LI.46	29831	53.4012%
LI.07	LI.47	7	0.5166%
LI.07	LI.48	42833	76.6765%
LI.07	LI.49	20	13.3333%
LI.07	LI.50	583	17.5550%
LI.07	LI.51	10173	18.2109%
LI.07	LI.52	9859	17.6488%
LI.07	LI.53	14981	26.8179%
LI.07	LI.54	1238	9.4030%
LI.07	LI.55	74	0.3406%
LI.07	LI.56	30661	54.8870%
LI.07	LI.57	173	0.3097%
LI.07	LI.58	1148	2.0551%
LI.07	LI.59	1684	10.6380%
LI.07	LI.60	0	0.0000%
LI.07	LI.61	23250	41.6204%
LI.07	LI.62	302	3.2275%
LI.07	LI.63	41222	73.7926%
LI.07	LI.64	5475	12.6106%
LI.07	LI.65	39815	71.2739%
LI.07	LI.66	7	0.2207%
LI.07	LI.67	3251	9.6886%
LI.07	LI.68	2	0.0189%
LI.07	LI.69	29237	52.3379%
LI.07	LI.70	18798	33.6508%
LI.07	LI.71	6968	12.4736%
LI.07	LI.72	904	1.6183%
LI.07	LI.73	17413	31.1715%
LI.07	LI.74	320	39.6530%
LI.07	LI.75	3271	11.6663%
LI.07	LI.76	24904	44.5813%
LI.07	LI.77	33062	59.1851%
LI.07	LI.78	160	8.0767%
LI.07	LI.79	22372	40.0487%
LI.07	LI.80	5532	9.9030%
LI.07	LI.81	2921	5.2290%
LI.07	LI.82	23879	42.7464%

Blacklist 1	Blacklist 2	Count	Percentage
LI_07	LI.83	4108	13.5510%
LI_07	LI.84	4	0.2057%
LI_07	LI.85	121	6.2403%
LI_07	LI.86	102	0.1826%
LI_07	LI.87	0	0.0000%
LI_07	LI.88	13432	24.0450%
LI_08	LI.09	0	0.0000%
LI_08	LI.10	1182476	32.0802%
LI_08	LI.11	8667	29.6247%
LI_08	LI.12	5864	14.5213%
LI_08	LI.13	1	0.7092%
LI_08	LI.14	1458	38.1376%
LI_08	LI.15	167559	32.7514%
LI_08	LI.16	84248	18.2484%
LI_08	LI.17	85860	27.5162%
LI_08	LI.18	1228	17.7636%
LI_08	LI.19	16	1.9116%
LI_08	LI.20	318	0.0981%
LI_08	LI.21	473906	12.8569%
LI_08	LI.22	216796	27.0183%
LI_08	LI.23	31201	68.3303%
LI_08	LI.24	361	3.9536%
LI_08	LI.25	23	0.2077%
LI_08	LI.26	85	1.3955%
LI_08	LI.27	80	4.4543%
LI_08	LI.28	1598	32.1659%
LI_08	LI.29	41407	23.8533%
LI_08	LI.30	962965	27.7717%
LI_08	LI.31	51	2.7899%
LI_08	LI.32	16	0.5453%
LI_08	LI.33	48	25.9459%
LI_08	LI.34	251401	15.6054%
LI_08	LI.35	22011	31.3972%
LI_08	LI.36	912	51.9658%
LI_08	LI.37	9034	16.2263%
LI_08	LI.38	1113	2.1698%
LI_08	LI.39	27089	18.1679%
LI_08	LI.40	16	1.2903%
LI_08	LI.41	82	8.9422%

Blacklist 1	Blacklist 2	Count	Percentage
LI_08	LI_42	4535	3.3453%
LI_08	LI_43	12665	15.8362%
LI_08	LI_44	104181	19.0805%
LI_08	LI_45	35	26.3158%
LI_08	LI_46	458289	23.1230%
LI_08	LI_47	20	1.4760%
LI_08	LI_48	2317697	62.8785%
LI_08	LI_49	36	24.0000%
LI_08	LI_50	1162	34.9895%
LI_08	LI_51	89365	25.8981%
LI_08	LI_52	140283	23.6509%
LI_08	LI_53	114423	43.5975%
LI_08	LI_54	3340	25.3684%
LI_08	LI_55	504	2.3195%
LI_08	LI_56	297696	28.1838%
LI_08	LI_57	1829	1.6463%
LI_08	LI_58	4413	0.6054%
LI_08	LI_59	5604	35.4011%
LI_08	LI_60	0	0.0000%
LI_08	LI_61	353841	28.3413%
LI_08	LI_62	860	9.1910%
LI_08	LI_63	1049488	28.4723%
LI_08	LI_64	16926	38.9856%
LI_08	LI_65	1519911	41.2348%
LI_08	LI_66	169	5.3279%
LI_08	LI_67	22200	66.1600%
LI_08	LI_68	23	0.2171%
LI_08	LI_69	337937	24.3568%
LI_08	LI_70	247088	30.7441%
LI_08	LI_71	71453	12.0717%
LI_08	LI_72	17875	0.9329%
LI_08	LI_73	174871	12.6520%
LI_08	LI_74	222	27.5093%
LI_08	LI_75	9678	34.5174%
LI_08	LI_76	98398	11.5171%
LI_08	LI_77	959198	34.7761%
LI_08	LI_78	502	25.3407%
LI_08	LI_79	86806	37.4032%
LI_08	LI_80	46803	39.3504%

Blacklist 1	Blacklist 2	Count	Percentage
LI_08	LI.81	8467	13.9482%
LI_08	LI.82	141618	33.5913%
LI_08	LI.83	3508	11.5718%
LI_08	LI.84	51	2.6221%
LI_08	LI.85	369	19.0304%
LI_08	LI.86	6957	0.1887%
LI_08	LI.87	16	0.0027%
LI_08	LI.88	42977	12.7980%
LI_09	LI.10	1	0.0129%
LI_09	LI.11	0	0.0000%
LI_09	LI.12	12	0.1547%
LI_09	LI.13	0	0.0000%
LI_09	LI.14	0	0.0000%
LI_09	LI.15	1	0.0129%
LI_09	LI.16	0	0.0000%
LI_09	LI.17	1	0.0129%
LI_09	LI.18	3	0.0434%
LI_09	LI.19	0	0.0000%
LI_09	LI.20	6	0.0774%
LI_09	LI.21	0	0.0000%
LI_09	LI.22	1	0.0129%
LI_09	LI.23	0	0.0000%
LI_09	LI.24	1	0.0129%
LI_09	LI.25	0	0.0000%
LI_09	LI.26	1	0.0164%
LI_09	LI.27	0	0.0000%
LI_09	LI.28	1	0.0201%
LI_09	LI.29	1	0.0129%
LI_09	LI.30	1	0.0129%
LI_09	LI.31	0	0.0000%
LI_09	LI.32	0	0.0000%
LI_09	LI.33	0	0.0000%
LI_09	LI.34	12	0.1547%
LI_09	LI.35	3	0.0387%
LI_09	LI.36	1	0.0570%
LI_09	LI.37	7	0.0903%
LI_09	LI.38	0	0.0000%
LI_09	LI.39	1	0.0129%
LI_09	LI.40	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI_09	LI.41	1	0.1091%
LI_09	LI.42	0	0.0000%
LI_09	LI.43	0	0.0000%
LI_09	LI.44	0	0.0000%
LI_09	LI.45	1	0.7519%
LI_09	LI.46	1	0.0129%
LI_09	LI.47	0	0.0000%
LI_09	LI.48	4	0.0516%
LI_09	LI.49	1	0.6667%
LI_09	LI.50	2	0.0602%
LI_09	LI.51	1	0.0129%
LI_09	LI.52	1	0.0129%
LI_09	LI.53	6	0.0774%
LI_09	LI.54	1	0.0129%
LI_09	LI.55	6	0.0774%
LI_09	LI.56	12	0.1547%
LI_09	LI.57	0	0.0000%
LI_09	LI.58	0	0.0000%
LI_09	LI.59	1	0.0129%
LI_09	LI.60	1	0.8065%
LI_09	LI.61	1	0.0129%
LI_09	LI.62	33	0.4255%
LI_09	LI.63	1	0.0129%
LI_09	LI.64	1	0.0129%
LI_09	LI.65	3	0.0387%
LI_09	LI.66	1	0.0315%
LI_09	LI.67	0	0.0000%
LI_09	LI.68	0	0.0000%
LI_09	LI.69	11	0.1418%
LI_09	LI.70	1	0.0129%
LI_09	LI.71	2	0.0258%
LI_09	LI.72	0	0.0000%
LI_09	LI.73	0	0.0000%
LI_09	LI.74	0	0.0000%
LI_09	LI.75	0	0.0000%
LI_09	LI.76	104	1.3409%
LI_09	LI.77	55	0.7091%
LI_09	LI.78	1	0.0505%
LI_09	LI.79	1	0.0129%

Blacklist 1	Blacklist 2	Count	Percentage
LI_09	LI.80	0	0.0000%
LI_09	LI.81	1	0.0129%
LI_09	LI.82	1	0.0129%
LI_09	LI.83	0	0.0000%
LI_09	LI.84	0	0.0000%
LI_09	LI.85	0	0.0000%
LI_09	LI.86	0	0.0000%
LI_09	LI.87	0	0.0000%
LI_09	LI.88	230	2.9654%
LI_10	LI.11	4897	16.7384%
LI_10	LI.12	23112	57.2334%
LI_10	LI.13	0	0.0000%
LI_10	LI.14	1303	34.0832%
LI_10	LI.15	211410	41.3226%
LI_10	LI.16	128657	27.8676%
LI_10	LI.17	226662	72.6402%
LI_10	LI.18	15	0.2170%
LI_10	LI.19	32	3.8232%
LI_10	LI.20	408	0.1259%
LI_10	LI.21	715096	14.6658%
LI_10	LI.22	429052	53.4708%
LI_10	LI.23	25170	55.1224%
LI_10	LI.24	1780	19.4940%
LI_10	LI.25	21	0.1897%
LI_10	LI.26	35	0.5746%
LI_10	LI.27	142	7.9065%
LI_10	LI.28	1681	33.8366%
LI_10	LI.29	90116	51.9131%
LI_10	LI.30	2018543	58.2144%
LI_10	LI.31	84	4.5952%
LI_10	LI.32	18	0.6135%
LI_10	LI.33	111	60.0000%
LI_10	LI.34	398720	24.7500%
LI_10	LI.35	47772	68.1435%
LI_10	LI.36	1039	59.2023%
LI_10	LI.37	20965	37.6560%
LI_10	LI.38	730	1.4231%
LI_10	LI.39	75171	50.4151%
LI_10	LI.40	90	7.2581%

Blacklist 1	Blacklist 2	Count	Percentage
LI_10	LI_41	70	7.6336%
LI_10	LI_42	19519	14.3984%
LI_10	LI_43	22092	27.6236%
LI_10	LI_44	194206	35.5683%
LI_10	LI_45	104	78.1955%
LI_10	LI_46	1150351	58.0411%
LI_10	LI_47	54	3.9852%
LI_10	LI_48	3690654	75.6912%
LI_10	LI_49	18	12.0000%
LI_10	LI_50	1300	39.1448%
LI_10	LI_51	142949	41.4268%
LI_10	LI_52	290448	48.9679%
LI_10	LI_53	168500	64.2020%
LI_10	LI_54	2596	19.7175%
LI_10	LI_55	1347	6.1991%
LI_10	LI_56	513157	48.5821%
LI_10	LI_57	5213	4.6923%
LI_10	LI_58	3290	0.4513%
LI_10	LI_59	13587	85.8307%
LI_10	LI_60	0	0.0000%
LI_10	LI_61	743230	59.5299%
LI_10	LI_62	2070	22.1225%
LI_10	LI_63	1835577	37.6456%
LI_10	LI_64	28153	64.8448%
LI_10	LI_65	2459747	50.4467%
LI_10	LI_66	211	6.6520%
LI_10	LI_67	24698	73.6045%
LI_10	LI_68	21	0.1982%
LI_10	LI_69	470378	33.9025%
LI_10	LI_70	531098	66.0822%
LI_10	LI_71	154472	26.0975%
LI_10	LI_72	22637	1.1815%
LI_10	LI_73	668125	48.3393%
LI_10	LI_74	400	49.5663%
LI_10	LI_75	21541	76.8279%
LI_10	LI_76	312924	36.6266%
LI_10	LI_77	1349409	48.9234%
LI_10	LI_78	1346	67.9455%
LI_10	LI_79	147217	63.4332%

Blacklist 1	Blacklist 2	Count	Percentage
LI.10	LI.80	62772	52.7766%
LI.10	LI.81	8645	14.2415%
LI.10	LI.82	270939	64.2658%
LI.10	LI.83	571	1.8836%
LI.10	LI.84	51	2.6221%
LI.10	LI.85	149	7.6844%
LI.10	LI.86	1900	0.0390%
LI.10	LI.87	37	0.0062%
LI.10	LI.88	79521	23.6803%
LI.11	LI.12	191	0.6529%
LI.11	LI.13	0	0.0000%
LI.11	LI.14	304	7.9519%
LI.11	LI.15	1169	3.9958%
LI.11	LI.16	5617	19.1995%
LI.11	LI.17	2552	8.7230%
LI.11	LI.18	43	0.6220%
LI.11	LI.19	0	0.0000%
LI.11	LI.20	1	0.0034%
LI.11	LI.21	9644	32.9642%
LI.11	LI.22	6859	23.4448%
LI.11	LI.23	5745	19.6370%
LI.11	LI.24	13	0.1424%
LI.11	LI.25	1	0.0090%
LI.11	LI.26	232	3.8089%
LI.11	LI.27	3	0.1670%
LI.11	LI.28	206	4.1465%
LI.11	LI.29	4152	14.1920%
LI.11	LI.30	13262	45.3309%
LI.11	LI.31	0	0.0000%
LI.11	LI.32	0	0.0000%
LI.11	LI.33	1	0.5405%
LI.11	LI.34	19575	66.9094%
LI.11	LI.35	2971	10.1552%
LI.11	LI.36	88	5.0142%
LI.11	LI.37	252	0.8614%
LI.11	LI.38	0	0.0000%
LI.11	LI.39	332	1.1348%
LI.11	LI.40	1	0.0806%
LI.11	LI.41	2	0.2181%

Blacklist 1	Blacklist 2	Count	Percentage
LI.11	LI.42	28	0.0957%
LI.11	LI.43	1070	3.6574%
LI.11	LI.44	7702	26.3262%
LI.11	LI.45	2	1.5038%
LI.11	LI.46	8518	29.1154%
LI.11	LI.47	2	0.1476%
LI.11	LI.48	20198	69.0388%
LI.11	LI.49	15	10.0000%
LI.11	LI.50	69	2.0777%
LI.11	LI.51	10857	37.1103%
LI.11	LI.52	8469	28.9479%
LI.11	LI.53	1585	5.4177%
LI.11	LI.54	636	4.8306%
LI.11	LI.55	17	0.0782%
LI.11	LI.56	15918	54.4094%
LI.11	LI.57	99	0.3384%
LI.11	LI.58	108	0.3692%
LI.11	LI.59	105	0.6633%
LI.11	LI.60	0	0.0000%
LI.11	LI.61	3968	13.5630%
LI.11	LI.62	24	0.2565%
LI.11	LI.63	7997	27.3346%
LI.11	LI.64	925	3.1617%
LI.11	LI.65	18913	64.6466%
LI.11	LI.66	4	0.1261%
LI.11	LI.67	1011	3.4557%
LI.11	LI.68	1	0.0094%
LI.11	LI.69	20621	70.4847%
LI.11	LI.70	2609	8.9178%
LI.11	LI.71	12273	41.9504%
LI.11	LI.72	2367	8.0906%
LI.11	LI.73	2123	7.2566%
LI.11	LI.74	12	1.4870%
LI.11	LI.75	207	0.7383%
LI.11	LI.76	8548	29.2179%
LI.11	LI.77	18882	64.5406%
LI.11	LI.78	17	0.8582%
LI.11	LI.79	3165	10.8183%
LI.11	LI.80	5695	19.4661%

Blacklist 1	Blacklist 2	Count	Percentage
LI.11	LI.81	2997	10.2441%
LI.11	LI.82	4781	16.3419%
LI.11	LI.83	1284	4.3888%
LI.11	LI.84	0	0.0000%
LI.11	LI.85	22	1.1346%
LI.11	LI.86	38	0.1299%
LI.11	LI.87	0	0.0000%
LI.11	LI.88	9970	34.0785%
LI.12	LI.13	0	0.0000%
LI.12	LI.14	124	3.2435%
LI.12	LI.15	1386	3.4322%
LI.12	LI.16	3934	9.7420%
LI.12	LI.17	6594	16.3291%
LI.12	LI.18	74	1.0704%
LI.12	LI.19	8	0.9558%
LI.12	LI.20	22	0.0545%
LI.12	LI.21	14203	35.1716%
LI.12	LI.22	12123	30.0208%
LI.12	LI.23	265	0.6562%
LI.12	LI.24	209	2.2889%
LI.12	LI.25	100	0.9031%
LI.12	LI.26	173	2.8403%
LI.12	LI.27	14	0.7795%
LI.12	LI.28	1073	21.5982%
LI.12	LI.29	4459	11.0420%
LI.12	LI.30	19957	49.4205%
LI.12	LI.31	9	0.4923%
LI.12	LI.32	1	0.0341%
LI.12	LI.33	4	2.1622%
LI.12	LI.34	6923	17.1438%
LI.12	LI.35	5643	13.9740%
LI.12	LI.36	127	7.2365%
LI.12	LI.37	8238	20.4002%
LI.12	LI.38	2	0.0050%
LI.12	LI.39	1810	4.4822%
LI.12	LI.40	3	0.2419%
LI.12	LI.41	55	5.9978%
LI.12	LI.42	164	0.4061%
LI.12	LI.43	690	1.7087%

Blacklist 1	Blacklist 2	Count	Percentage
LI.12	LI.44	3446	8.5335%
LI.12	LI.45	29	21.8045%
LI.12	LI.46	16380	40.5626%
LI.12	LI.47	1	0.0738%
LI.12	LI.48	21930	54.3064%
LI.12	LI.49	8	5.3333%
LI.12	LI.50	855	25.7453%
LI.12	LI.51	3746	9.2764%
LI.12	LI.52	5384	13.3327%
LI.12	LI.53	2162	5.3539%
LI.12	LI.54	858	6.5168%
LI.12	LI.55	87	0.4004%
LI.12	LI.56	12905	31.9573%
LI.12	LI.57	204	0.5052%
LI.12	LI.58	538	1.3323%
LI.12	LI.59	1393	8.7997%
LI.12	LI.60	4	3.2258%
LI.12	LI.61	10201	25.2613%
LI.12	LI.62	347	3.7085%
LI.12	LI.63	18139	44.9185%
LI.12	LI.64	2565	6.3518%
LI.12	LI.65	23955	59.3210%
LI.12	LI.66	20	0.6305%
LI.12	LI.67	851	2.5361%
LI.12	LI.68	96	0.9063%
LI.12	LI.69	10666	26.4128%
LI.12	LI.70	7440	18.4241%
LI.12	LI.71	4481	11.0965%
LI.12	LI.72	1074	2.6596%
LI.12	LI.73	8938	22.1336%
LI.12	LI.74	165	20.4461%
LI.12	LI.75	4097	14.6123%
LI.12	LI.76	16475	40.7979%
LI.12	LI.77	10924	27.0517%
LI.12	LI.78	213	10.7521%
LI.12	LI.79	6947	17.2032%
LI.12	LI.80	1124	2.7834%
LI.12	LI.81	1286	3.1846%
LI.12	LI.82	11455	28.3666%

Blacklist 1	Blacklist 2	Count	Percentage
LI.12	LI.83	1414	4.6644%
LI.12	LI.84	7	0.3599%
LI.12	LI.85	65	3.3522%
LI.12	LI.86	163	0.4036%
LI.12	LI.87	1	0.0025%
LI.12	LI.88	6599	16.3414%
LI.13	LI.14	0	0.0000%
LI.13	LI.15	0	0.0000%
LI.13	LI.16	0	0.0000%
LI.13	LI.17	0	0.0000%
LI.13	LI.18	0	0.0000%
LI.13	LI.19	0	0.0000%
LI.13	LI.20	0	0.0000%
LI.13	LI.21	3	2.1277%
LI.13	LI.22	0	0.0000%
LI.13	LI.23	0	0.0000%
LI.13	LI.24	0	0.0000%
LI.13	LI.25	0	0.0000%
LI.13	LI.26	0	0.0000%
LI.13	LI.27	2	1.4184%
LI.13	LI.28	0	0.0000%
LI.13	LI.29	0	0.0000%
LI.13	LI.30	0	0.0000%
LI.13	LI.31	0	0.0000%
LI.13	LI.32	0	0.0000%
LI.13	LI.33	0	0.0000%
LI.13	LI.34	0	0.0000%
LI.13	LI.35	0	0.0000%
LI.13	LI.36	0	0.0000%
LI.13	LI.37	0	0.0000%
LI.13	LI.38	0	0.0000%
LI.13	LI.39	1	0.7092%
LI.13	LI.40	1	0.7092%
LI.13	LI.41	0	0.0000%
LI.13	LI.42	0	0.0000%
LI.13	LI.43	0	0.0000%
LI.13	LI.44	0	0.0000%
LI.13	LI.45	0	0.0000%
LI.13	LI.46	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI.13	LI.47	0	0.0000%
LI.13	LI.48	3	2.1277%
LI.13	LI.49	0	0.0000%
LI.13	LI.50	0	0.0000%
LI.13	LI.51	1	0.7092%
LI.13	LI.52	0	0.0000%
LI.13	LI.53	1	0.7092%
LI.13	LI.54	0	0.0000%
LI.13	LI.55	0	0.0000%
LI.13	LI.56	1	0.7092%
LI.13	LI.57	0	0.0000%
LI.13	LI.58	0	0.0000%
LI.13	LI.59	0	0.0000%
LI.13	LI.60	0	0.0000%
LI.13	LI.61	0	0.0000%
LI.13	LI.62	0	0.0000%
LI.13	LI.63	0	0.0000%
LI.13	LI.64	0	0.0000%
LI.13	LI.65	1	0.7092%
LI.13	LI.66	0	0.0000%
LI.13	LI.67	0	0.0000%
LI.13	LI.68	0	0.0000%
LI.13	LI.69	1	0.7092%
LI.13	LI.70	0	0.0000%
LI.13	LI.71	1	0.7092%
LI.13	LI.72	32	22.6950%
LI.13	LI.73	2	1.4184%
LI.13	LI.74	0	0.0000%
LI.13	LI.75	0	0.0000%
LI.13	LI.76	1	0.7092%
LI.13	LI.77	1	0.7092%
LI.13	LI.78	0	0.0000%
LI.13	LI.79	0	0.0000%
LI.13	LI.80	0	0.0000%
LI.13	LI.81	0	0.0000%
LI.13	LI.82	1	0.7092%
LI.13	LI.83	0	0.0000%
LI.13	LI.84	0	0.0000%
LI.13	LI.85	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI.13	LI.86	0	0.0000%
LI.13	LI.87	0	0.0000%
LI.13	LI.88	2	1.4184%
LI.14	LI.15	131	3.4266%
LI.14	LI.16	1021	26.7068%
LI.14	LI.17	828	21.6584%
LI.14	LI.18	8	0.2093%
LI.14	LI.19	0	0.0000%
LI.14	LI.20	0	0.0000%
LI.14	LI.21	1036	27.0991%
LI.14	LI.22	1871	48.9406%
LI.14	LI.23	242	6.3301%
LI.14	LI.24	21	0.5493%
LI.14	LI.25	0	0.0000%
LI.14	LI.26	7	0.1831%
LI.14	LI.27	8	0.4454%
LI.14	LI.28	139	3.6359%
LI.14	LI.29	906	23.6987%
LI.14	LI.30	2441	63.8504%
LI.14	LI.31	2	0.1094%
LI.14	LI.32	0	0.0000%
LI.14	LI.33	0	0.0000%
LI.14	LI.34	2128	55.6631%
LI.14	LI.35	824	21.5538%
LI.14	LI.36	53	3.0199%
LI.14	LI.37	127	3.3220%
LI.14	LI.38	0	0.0000%
LI.14	LI.39	177	4.6299%
LI.14	LI.40	0	0.0000%
LI.14	LI.41	2	0.2181%
LI.14	LI.42	6	0.1569%
LI.14	LI.43	189	4.9438%
LI.14	LI.44	1358	35.5218%
LI.14	LI.45	0	0.0000%
LI.14	LI.46	1820	47.6066%
LI.14	LI.47	0	0.0000%
LI.14	LI.48	2702	70.6775%
LI.14	LI.49	7	4.6667%
LI.14	LI.50	37	1.1141%

Blacklist 1	Blacklist 2	Count	Percentage
LI.14	LI.51	1577	41.2503%
LI.14	LI.52	1095	28.6424%
LI.14	LI.53	501	13.1049%
LI.14	LI.54	125	3.2697%
LI.14	LI.55	0	0.0000%
LI.14	LI.56	3117	81.5328%
LI.14	LI.57	15	0.3924%
LI.14	LI.58	8	0.2093%
LI.14	LI.59	119	3.1127%
LI.14	LI.60	0	0.0000%
LI.14	LI.61	1566	40.9626%
LI.14	LI.62	40	1.0463%
LI.14	LI.63	2515	65.7860%
LI.14	LI.64	483	12.6341%
LI.14	LI.65	3021	79.0217%
LI.14	LI.66	1	0.0315%
LI.14	LI.67	245	6.4086%
LI.14	LI.68	0	0.0000%
LI.14	LI.69	2413	63.1180%
LI.14	LI.70	818	21.3968%
LI.14	LI.71	1721	45.0170%
LI.14	LI.72	213	5.5715%
LI.14	LI.73	1103	28.8517%
LI.14	LI.74	11	1.3631%
LI.14	LI.75	206	5.3884%
LI.14	LI.76	1830	47.8682%
LI.14	LI.77	2611	68.2971%
LI.14	LI.78	13	0.6562%
LI.14	LI.79	1083	28.3285%
LI.14	LI.80	671	17.5517%
LI.14	LI.81	262	6.8533%
LI.14	LI.82	1563	40.8841%
LI.14	LI.83	88	2.3019%
LI.14	LI.84	0	0.0000%
LI.14	LI.85	18	0.9283%
LI.14	LI.86	4	0.1046%
LI.14	LI.87	0	0.0000%
LI.14	LI.88	2261	59.1420%
LI.15	LI.16	33906	7.3442%

Blacklist 1	Blacklist 2	Count	Percentage
LI.15	LI.17	44464	14.2497%
LI.15	LI.18	0	0.0000%
LI.15	LI.19	0	0.0000%
LI.15	LI.20	31	0.0096%
LI.15	LI.21	91521	17.8889%
LI.15	LI.22	81184	15.8684%
LI.15	LI.23	15268	33.4370%
LI.15	LI.24	164	1.7961%
LI.15	LI.25	1	0.0090%
LI.15	LI.26	0	0.0000%
LI.15	LI.27	2	0.1114%
LI.15	LI.28	306	6.1594%
LI.15	LI.29	14959	8.6174%
LI.15	LI.30	211396	41.3198%
LI.15	LI.31	2	0.1094%
LI.15	LI.32	0	0.0000%
LI.15	LI.33	6	3.2432%
LI.15	LI.34	80956	15.8238%
LI.15	LI.35	8962	12.7837%
LI.15	LI.36	456	25.9829%
LI.15	LI.37	2113	3.7952%
LI.15	LI.38	47	0.0916%
LI.15	LI.39	8801	5.9026%
LI.15	LI.40	5	0.4032%
LI.15	LI.41	1	0.1091%
LI.15	LI.42	2626	1.9371%
LI.15	LI.43	5695	7.1210%
LI.15	LI.44	27870	5.4475%
LI.15	LI.45	27	20.3008%
LI.15	LI.46	134250	26.2407%
LI.15	LI.47	8	0.5904%
LI.15	LI.48	281896	55.0999%
LI.15	LI.49	2	1.3333%
LI.15	LI.50	243	7.3171%
LI.15	LI.51	26070	7.5551%
LI.15	LI.52	27882	5.4499%
LI.15	LI.53	48359	18.4258%
LI.15	LI.54	236	1.7925%
LI.15	LI.55	149	0.6857%

Blacklist 1	Blacklist 2	Count	Percentage
LI.15	LI.56	84721	16.5597%
LI.15	LI.57	471	0.4240%
LI.15	LI.58	251	0.0491%
LI.15	LI.59	2508	15.8433%
LI.15	LI.60	0	0.0000%
LI.15	LI.61	108131	21.1355%
LI.15	LI.62	409	4.3711%
LI.15	LI.63	188353	36.8158%
LI.15	LI.64	11343	26.1263%
LI.15	LI.65	213741	41.7782%
LI.15	LI.66	1	0.0315%
LI.15	LI.67	12342	36.7814%
LI.15	LI.68	1	0.0094%
LI.15	LI.69	90188	17.6283%
LI.15	LI.70	90234	17.6373%
LI.15	LI.71	17764	3.4722%
LI.15	LI.72	1660	0.3245%
LI.15	LI.73	76856	15.0224%
LI.15	LI.74	87	10.7807%
LI.15	LI.75	3947	14.0773%
LI.15	LI.76	37074	7.2465%
LI.15	LI.77	162842	31.8294%
LI.15	LI.78	170	8.5815%
LI.15	LI.79	30512	13.1471%
LI.15	LI.80	22706	19.0905%
LI.15	LI.81	2598	4.2799%
LI.15	LI.82	56144	13.3172%
LI.15	LI.83	5	0.0165%
LI.15	LI.84	0	0.0000%
LI.15	LI.85	14	0.7220%
LI.15	LI.86	85	0.0166%
LI.15	LI.87	13	0.0025%
LI.15	LI.88	12756	3.7986%
LI.16	LI.17	32239	10.3319%
LI.16	LI.18	2495	36.0914%
LI.16	LI.19	8	0.9558%
LI.16	LI.20	34	0.0105%
LI.16	LI.21	98008	21.2289%
LI.16	LI.22	87289	18.9071%

Blacklist 1	Blacklist 2	Count	Percentage
LI.16	LI.23	11749	25.7304%
LI.16	LI.24	384	4.2055%
LI.16	LI.25	1	0.0090%
LI.16	LI.26	3405	55.9022%
LI.16	LI.27	55	3.0624%
LI.16	LI.28	1871	37.6610%
LI.16	LI.29	22202	12.7899%
LI.16	LI.30	143034	30.9817%
LI.16	LI.31	26	1.4223%
LI.16	LI.32	0	0.0000%
LI.16	LI.33	34	18.3784%
LI.16	LI.34	105315	22.8116%
LI.16	LI.35	12932	18.4466%
LI.16	LI.36	658	37.4929%
LI.16	LI.37	4624	8.3053%
LI.16	LI.38	16	0.0312%
LI.16	LI.39	6047	4.0556%
LI.16	LI.40	12	0.9677%
LI.16	LI.41	32	3.4896%
LI.16	LI.42	3145	2.3199%
LI.16	LI.43	7957	9.9494%
LI.16	LI.44	41729	9.0386%
LI.16	LI.45	58	43.6090%
LI.16	LI.46	96227	20.8431%
LI.16	LI.47	18	1.3284%
LI.16	LI.48	283673	61.4446%
LI.16	LI.49	68	45.3333%
LI.16	LI.50	407	12.2553%
LI.16	LI.51	52444	15.1983%
LI.16	LI.52	44956	9.7376%
LI.16	LI.53	24612	9.3777%
LI.16	LI.54	3608	27.4039%
LI.16	LI.55	309	1.4221%
LI.16	LI.56	121014	26.2121%
LI.16	LI.57	1521	1.3691%
LI.16	LI.58	1488	0.3223%
LI.16	LI.59	3317	20.9539%
LI.16	LI.60	0	0.0000%
LI.16	LI.61	63288	13.7084%

Blacklist 1	Blacklist 2	Count	Percentage
LI.16	LI.62	829	8.8597%
LI.16	LI.63	113727	24.6337%
LI.16	LI.64	10122	23.3140%
LI.16	LI.65	190992	41.3695%
LI.16	LI.66	80	2.5221%
LI.16	LI.67	10283	30.6452%
LI.16	LI.68	1	0.0094%
LI.16	LI.69	156890	33.9829%
LI.16	LI.70	55461	12.0130%
LI.16	LI.71	77167	16.7146%
LI.16	LI.72	9401	2.0363%
LI.16	LI.73	56595	12.2587%
LI.16	LI.74	339	42.0074%
LI.16	LI.75	5430	19.3666%
LI.16	LI.76	104369	22.6067%
LI.16	LI.77	143569	31.0976%
LI.16	LI.78	207	10.4493%
LI.16	LI.79	28762	12.3930%
LI.16	LI.80	21997	18.4944%
LI.16	LI.81	10463	17.2364%
LI.16	LI.82	45079	10.6926%
LI.16	LI.83	16939	55.8766%
LI.16	LI.84	9	0.4627%
LI.16	LI.85	72	3.7133%
LI.16	LI.86	7423	1.6078%
LI.16	LI.87	7	0.0015%
LI.16	LI.88	56866	16.9339%
LI.17	LI.18	161	2.3289%
LI.17	LI.19	9	1.0753%
LI.17	LI.20	20	0.0064%
LI.17	LI.21	73627	23.5958%
LI.17	LI.22	128572	41.2045%
LI.17	LI.23	11148	24.4142%
LI.17	LI.24	250	2.7379%
LI.17	LI.25	3	0.0271%
LI.17	LI.26	101	1.6582%
LI.17	LI.27	15	0.8352%
LI.17	LI.28	1164	23.4300%
LI.17	LI.29	28650	16.5044%

Blacklist 1	Blacklist 2	Count	Percentage
LI.17	LI.30	248246	79.5574%
LI.17	LI.31	10	0.5470%
LI.17	LI.32	0	0.0000%
LI.17	LI.33	41	22.1622%
LI.17	LI.34	97125	31.1264%
LI.17	LI.35	19295	27.5230%
LI.17	LI.36	820	46.7236%
LI.17	LI.37	7257	13.0346%
LI.17	LI.38	24	0.0468%
LI.17	LI.39	12471	8.3640%
LI.17	LI.40	15	1.2097%
LI.17	LI.41	20	2.1810%
LI.17	LI.42	2622	1.9341%
LI.17	LI.43	7644	9.5580%
LI.17	LI.44	56641	18.1522%
LI.17	LI.45	90	67.6692%
LI.17	LI.46	172374	55.2421%
LI.17	LI.47	17	1.2546%
LI.17	LI.48	282062	90.3946%
LI.17	LI.49	41	27.3333%
LI.17	LI.50	479	14.4234%
LI.17	LI.51	44194	14.1632%
LI.17	LI.52	50845	16.2947%
LI.17	LI.53	49632	18.9108%
LI.17	LI.54	1468	11.1499%
LI.17	LI.55	233	1.0723%
LI.17	LI.56	122616	39.2957%
LI.17	LI.57	794	0.7147%
LI.17	LI.58	222	0.0711%
LI.17	LI.59	5618	35.4896%
LI.17	LI.60	0	0.0000%
LI.17	LI.61	128415	41.1542%
LI.17	LI.62	535	5.7176%
LI.17	LI.63	209863	67.2565%
LI.17	LI.64	21012	48.3969%
LI.17	LI.65	247512	79.3221%
LI.17	LI.66	15	0.4729%
LI.17	LI.67	10122	30.1654%
LI.17	LI.68	3	0.0283%

Blacklist 1	Blacklist 2	Count	Percentage
LI.17	LI.69	116208	37.2421%
LI.17	LI.70	96981	31.0803%
LI.17	LI.71	42751	13.7008%
LI.17	LI.72	4411	1.4136%
LI.17	LI.73	100610	32.2433%
LI.17	LI.74	340	42.1314%
LI.17	LI.75	10178	36.3007%
LI.17	LI.76	90395	28.9696%
LI.17	LI.77	157995	50.6339%
LI.17	LI.78	578	29.1772%
LI.17	LI.79	57826	24.9162%
LI.17	LI.80	25908	21.7826%
LI.17	LI.81	4798	7.9041%
LI.17	LI.82	91756	29.4058%
LI.17	LI.83	1174	3.8727%
LI.17	LI.84	13	0.6684%
LI.17	LI.85	150	7.7359%
LI.17	LI.86	275	0.0881%
LI.17	LI.87	12	0.0038%
LI.17	LI.88	35721	11.4478%
LI.18	LI.19	0	0.0000%
LI.18	LI.20	1	0.0145%
LI.18	LI.21	1022	14.7837%
LI.18	LI.22	2180	31.5348%
LI.18	LI.23	60	0.8679%
LI.18	LI.24	1	0.0145%
LI.18	LI.25	0	0.0000%
LI.18	LI.26	106	1.7403%
LI.18	LI.27	0	0.0000%
LI.18	LI.28	85	1.7110%
LI.18	LI.29	32	0.4629%
LI.18	LI.30	419	6.0610%
LI.18	LI.31	0	0.0000%
LI.18	LI.32	0	0.0000%
LI.18	LI.33	0	0.0000%
LI.18	LI.34	1025	14.8271%
LI.18	LI.35	45	0.6509%
LI.18	LI.36	15	0.8547%
LI.18	LI.37	80	1.1572%

Blacklist 1	Blacklist 2	Count	Percentage
LI.18	LI.38	0	0.0000%
LI.18	LI.39	1	0.0145%
LI.18	LI.40	0	0.0000%
LI.18	LI.41	1	0.1091%
LI.18	LI.42	0	0.0000%
LI.18	LI.43	6	0.0868%
LI.18	LI.44	764	11.0516%
LI.18	LI.45	1	0.7519%
LI.18	LI.46	15	0.2170%
LI.18	LI.47	0	0.0000%
LI.18	LI.48	224	3.2403%
LI.18	LI.49	7	4.6667%
LI.18	LI.50	14	0.4216%
LI.18	LI.51	73	1.0560%
LI.18	LI.52	337	4.8749%
LI.18	LI.53	5	0.0723%
LI.18	LI.54	157	2.2711%
LI.18	LI.55	0	0.0000%
LI.18	LI.56	2682	38.7965%
LI.18	LI.57	0	0.0000%
LI.18	LI.58	67	0.9692%
LI.18	LI.59	1	0.0145%
LI.18	LI.60	0	0.0000%
LI.18	LI.61	52	0.7522%
LI.18	LI.62	7	0.1013%
LI.18	LI.63	188	2.7195%
LI.18	LI.64	3	0.0434%
LI.18	LI.65	1748	25.2857%
LI.18	LI.66	0	0.0000%
LI.18	LI.67	158	2.2855%
LI.18	LI.68	0	0.0000%
LI.18	LI.69	4604	66.5992%
LI.18	LI.70	14	0.2025%
LI.18	LI.71	86	1.2440%
LI.18	LI.72	0	0.0000%
LI.18	LI.73	45	0.6509%
LI.18	LI.74	0	0.0000%
LI.18	LI.75	46	0.6654%
LI.18	LI.76	1659	23.9983%

Blacklist 1	Blacklist 2	Count	Percentage
LI.18	LI.77	1210	17.5033%
LI.18	LI.78	1	0.0505%
LI.18	LI.79	221	3.1969%
LI.18	LI.80	17	0.2459%
LI.18	LI.81	396	5.7283%
LI.18	LI.82	125	1.8082%
LI.18	LI.83	914	13.2215%
LI.18	LI.84	0	0.0000%
LI.18	LI.85	0	0.0000%
LI.18	LI.86	0	0.0000%
LI.18	LI.87	0	0.0000%
LI.18	LI.88	978	14.1473%
LI.19	LI.20	0	0.0000%
LI.19	LI.21	25	2.9869%
LI.19	LI.22	19	2.2700%
LI.19	LI.23	0	0.0000%
LI.19	LI.24	0	0.0000%
LI.19	LI.25	0	0.0000%
LI.19	LI.26	0	0.0000%
LI.19	LI.27	5	0.5974%
LI.19	LI.28	0	0.0000%
LI.19	LI.29	3	0.3584%
LI.19	LI.30	27	3.2258%
LI.19	LI.31	1	0.1195%
LI.19	LI.32	0	0.0000%
LI.19	LI.33	0	0.0000%
LI.19	LI.34	8	0.9558%
LI.19	LI.35	5	0.5974%
LI.19	LI.36	0	0.0000%
LI.19	LI.37	7	0.8363%
LI.19	LI.38	0	0.0000%
LI.19	LI.39	0	0.0000%
LI.19	LI.40	56	6.6906%
LI.19	LI.41	0	0.0000%
LI.19	LI.42	1	0.1195%
LI.19	LI.43	1	0.1195%
LI.19	LI.44	2	0.2389%
LI.19	LI.45	0	0.0000%
LI.19	LI.46	13	1.5532%

Blacklist 1	Blacklist 2	Count	Percentage
LI.19	LI.47	4	0.4779%
LI.19	LI.48	129	15.4122%
LI.19	LI.49	0	0.0000%
LI.19	LI.50	2	0.2389%
LI.19	LI.51	10	1.1947%
LI.19	LI.52	8	0.9558%
LI.19	LI.53	5	0.5974%
LI.19	LI.54	1	0.1195%
LI.19	LI.55	5	0.5974%
LI.19	LI.56	25	2.9869%
LI.19	LI.57	8	0.9558%
LI.19	LI.58	0	0.0000%
LI.19	LI.59	2	0.2389%
LI.19	LI.60	0	0.0000%
LI.19	LI.61	8	0.9558%
LI.19	LI.62	1	0.1195%
LI.19	LI.63	17	2.0311%
LI.19	LI.64	2	0.2389%
LI.19	LI.65	40	4.7790%
LI.19	LI.66	0	0.0000%
LI.19	LI.67	0	0.0000%
LI.19	LI.68	0	0.0000%
LI.19	LI.69	23	2.7479%
LI.19	LI.70	13	1.5532%
LI.19	LI.71	29	3.4648%
LI.19	LI.72	64	7.6464%
LI.19	LI.73	11	1.3142%
LI.19	LI.74	0	0.0000%
LI.19	LI.75	5	0.5974%
LI.19	LI.76	15	1.7921%
LI.19	LI.77	13	1.5532%
LI.19	LI.78	0	0.0000%
LI.19	LI.79	7	0.8363%
LI.19	LI.80	0	0.0000%
LI.19	LI.81	0	0.0000%
LI.19	LI.82	12	1.4337%
LI.19	LI.83	0	0.0000%
LI.19	LI.84	1	0.1195%
LI.19	LI.85	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI.19	LI.86	2	0.2389%
LI.19	LI.87	0	0.0000%
LI.19	LI.88	15	1.7921%
LI.20	LI.21	4282	1.3216%
LI.20	LI.22	57	0.0176%
LI.20	LI.23	2	0.0044%
LI.20	LI.24	1	0.0110%
LI.20	LI.25	282	2.5467%
LI.20	LI.26	0	0.0000%
LI.20	LI.27	0	0.0000%
LI.20	LI.28	1	0.0201%
LI.20	LI.29	17	0.0098%
LI.20	LI.30	273	0.0843%
LI.20	LI.31	0	0.0000%
LI.20	LI.32	613	20.8930%
LI.20	LI.33	0	0.0000%
LI.20	LI.34	228	0.0704%
LI.20	LI.35	9	0.0128%
LI.20	LI.36	0	0.0000%
LI.20	LI.37	6	0.0108%
LI.20	LI.38	19	0.0370%
LI.20	LI.39	23	0.0154%
LI.20	LI.40	0	0.0000%
LI.20	LI.41	1	0.1091%
LI.20	LI.42	9	0.0066%
LI.20	LI.43	11	0.0138%
LI.20	LI.44	64	0.0198%
LI.20	LI.45	1	0.7519%
LI.20	LI.46	154	0.0475%
LI.20	LI.47	0	0.0000%
LI.20	LI.48	1330	0.4105%
LI.20	LI.49	0	0.0000%
LI.20	LI.50	0	0.0000%
LI.20	LI.51	36	0.0111%
LI.20	LI.52	31	0.0096%
LI.20	LI.53	16	0.0061%
LI.20	LI.54	0	0.0000%
LI.20	LI.55	2	0.0092%
LI.20	LI.56	81	0.0250%

Blacklist 1	Blacklist 2	Count	Percentage
LI_20	LI.57	10	0.0090%
LI_20	LI.58	262	0.0809%
LI_20	LI.59	4	0.0253%
LI_20	LI.60	7	5.6452%
LI_20	LI.61	105	0.0324%
LI_20	LI.62	0	0.0000%
LI_20	LI.63	439	0.1355%
LI_20	LI.64	0	0.0000%
LI_20	LI.65	475	0.1466%
LI_20	LI.66	0	0.0000%
LI_20	LI.67	3	0.0089%
LI_20	LI.68	275	2.5961%
LI_20	LI.69	105	0.0324%
LI_20	LI.70	64	0.0198%
LI_20	LI.71	39	0.0120%
LI_20	LI.72	144	0.0444%
LI_20	LI.73	110	0.0339%
LI_20	LI.74	0	0.0000%
LI_20	LI.75	3	0.0107%
LI_20	LI.76	75	0.0231%
LI_20	LI.77	243	0.0750%
LI_20	LI.78	0	0.0000%
LI_20	LI.79	24	0.0103%
LI_20	LI.80	11	0.0092%
LI_20	LI.81	4	0.0066%
LI_20	LI.82	23	0.0071%
LI_20	LI.83	2	0.0066%
LI_20	LI.84	9	0.4627%
LI_20	LI.85	0	0.0000%
LI_20	LI.86	1576	0.4864%
LI_20	LI.87	87	0.0269%
LI_20	LI.88	67	0.0207%
LI_21	LI.22	164126	20.4543%
LI_21	LI.23	13799	30.2199%
LI_21	LI.24	1358	14.8724%
LI_21	LI.25	126	1.1379%
LI_21	LI.26	2554	41.9307%
LI_21	LI.27	57	3.1737%
LI_21	LI.28	2847	57.3068%

Blacklist 1	Blacklist 2	Count	Percentage
LI_21	LI_29	38946	22.4356%
LI_21	LI_30	523039	15.0844%
LI_21	LI_31	58	3.1729%
LI_21	LI_32	97	3.3061%
LI_21	LI_33	20	10.8108%
LI_21	LI_34	181308	11.2544%
LI_21	LI_35	22517	32.1190%
LI_21	LI_36	943	53.7322%
LI_21	LI_37	15464	27.7755%
LI_21	LI_38	4061	7.9170%
LI_21	LI_39	23404	15.6964%
LI_21	LI_40	73	5.8871%
LI_21	LI_41	44	4.7983%
LI_21	LI_42	15815	11.6661%
LI_21	LI_43	9918	12.4014%
LI_21	LI_44	83380	15.2708%
LI_21	LI_45	58	43.6090%
LI_21	LI_46	326159	16.4564%
LI_21	LI_47	38	2.8044%
LI_21	LI_48	2021082	12.9434%
LI_21	LI_49	67	44.6667%
LI_21	LI_50	1760	52.9961%
LI_21	LI_51	71581	20.7443%
LI_21	LI_52	96351	16.2442%
LI_21	LI_53	43532	16.5866%
LI_21	LI_54	4545	34.5207%
LI_21	LI_55	1211	5.5732%
LI_21	LI_56	193557	18.3246%
LI_21	LI_57	6179	5.5618%
LI_21	LI_58	20979	2.8779%
LI_21	LI_59	5411	34.1819%
LI_21	LI_60	1	0.8065%
LI_21	LI_61	154863	12.4039%
LI_21	LI_62	1908	20.3912%
LI_21	LI_63	694521	12.6404%
LI_21	LI_64	14346	33.0431%
LI_21	LI_65	854574	13.8527%
LI_21	LI_66	83	2.6166%
LI_21	LI_67	10581	31.5333%

Blacklist 1	Blacklist 2	Count	Percentage
LI_21	LI.68	118	1.1139%
LI_21	LI.69	203879	14.6946%
LI_21	LI.70	141327	17.5847%
LI_21	LI.71	98803	16.6924%
LI_21	LI.72	57632	3.0079%
LI_21	LI.73	216732	15.6807%
LI_21	LI.74	313	38.7856%
LI_21	LI.75	10291	36.7038%
LI_21	LI.76	155734	18.2281%
LI_21	LI.77	386769	14.0225%
LI_21	LI.78	713	35.9919%
LI_21	LI.79	54943	23.6740%
LI_21	LI.80	26843	22.5687%
LI_21	LI.81	17238	28.3973%
LI_21	LI.82	88527	20.9983%
LI_21	LI.83	16229	53.5346%
LI_21	LI.84	31	1.5938%
LI_21	LI.85	176	9.0768%
LI_21	LI.86	8248	0.0375%
LI_21	LI.87	61	0.0102%
LI_21	LI.88	74482	22.1797%
LI_22	LI.23	20646	45.2148%
LI_22	LI.24	500	5.4759%
LI_22	LI.25	7	0.0632%
LI_22	LI.26	3823	62.7647%
LI_22	LI.27	69	3.8419%
LI_22	LI.28	3516	70.7729%
LI_22	LI.29	48944	28.1952%
LI_22	LI.30	480651	59.9013%
LI_22	LI.31	57	3.1182%
LI_22	LI.32	1	0.0341%
LI_22	LI.33	24	12.9730%
LI_22	LI.34	196543	24.4942%
LI_22	LI.35	31407	44.7999%
LI_22	LI.36	1401	79.8291%
LI_22	LI.37	14843	26.6601%
LI_22	LI.38	28	0.0546%
LI_22	LI.39	24001	16.0968%
LI_22	LI.40	32	2.5806%

Blacklist 1	Blacklist 2	Count	Percentage
LI_22	LI.41	99	10.7961%
LI_22	LI.42	6038	4.4540%
LI_22	LI.43	12946	16.1876%
LI_22	LI.44	109833	20.1156%
LI_22	LI.45	121	90.9774%
LI_22	LI.46	313189	39.0313%
LI_22	LI.47	24	1.7712%
LI_22	LI.48	562030	70.0432%
LI_22	LI.49	103	68.6667%
LI_22	LI.50	1924	57.9344%
LI_22	LI.51	80315	23.2754%
LI_22	LI.52	95134	16.0390%
LI_22	LI.53	86416	32.9263%
LI_22	LI.54	6186	46.9847%
LI_22	LI.55	439	2.0203%
LI_22	LI.56	298727	37.2290%
LI_22	LI.57	1398	1.2583%
LI_22	LI.58	3528	0.4840%
LI_22	LI.59	7092	44.8010%
LI_22	LI.60	0	0.0000%
LI_22	LI.61	238930	29.7767%
LI_22	LI.62	991	10.5910%
LI_22	LI.63	435989	54.3353%
LI_22	LI.64	28466	65.5657%
LI_22	LI.65	522072	65.0634%
LI_22	LI.66	162	5.1072%
LI_22	LI.67	19859	59.1834%
LI_22	LI.68	7	0.0661%
LI_22	LI.69	322351	40.1731%
LI_22	LI.70	173913	21.6740%
LI_22	LI.71	77083	13.0229%
LI_22	LI.72	12731	1.5866%
LI_22	LI.73	179184	22.3309%
LI_22	LI.74	643	79.6778%
LI_22	LI.75	13815	49.2724%
LI_22	LI.76	197937	24.6680%
LI_22	LI.77	357876	44.6004%
LI_22	LI.78	742	37.4558%
LI_22	LI.79	103723	44.6924%

Blacklist 1	Blacklist 2	Count	Percentage
LI_22	LI.80	41423	34.8271%
LI_22	LI.81	17094	28.1601%
LI_22	LI.82	165218	39.1892%
LI_22	LI.83	23471	77.4237%
LI_22	LI.84	40	2.0566%
LI_22	LI.85	1504	77.5658%
LI_22	LI.86	386	0.0481%
LI_22	LI.87	22	0.0037%
LI_22	LI.88	86177	25.6624%
LI_23	LI.24	13	0.1424%
LI_23	LI.25	1	0.0090%
LI_23	LI.26	57	0.9358%
LI_23	LI.27	3	0.1670%
LI_23	LI.28	343	6.9042%
LI_23	LI.29	6567	14.3818%
LI_23	LI.30	34201	74.9004%
LI_23	LI.31	2	0.1094%
LI_23	LI.32	0	0.0000%
LI_23	LI.33	0	0.0000%
LI_23	LI.34	34492	75.5376%
LI_23	LI.35	3046	6.6708%
LI_23	LI.36	217	12.3647%
LI_23	LI.37	326	0.7139%
LI_23	LI.38	1	0.0022%
LI_23	LI.39	1814	3.9727%
LI_23	LI.40	2	0.1613%
LI_23	LI.41	5	0.5453%
LI_23	LI.42	38	0.0832%
LI_23	LI.43	2508	5.4925%
LI_23	LI.44	11211	24.5521%
LI_23	LI.45	4	3.0075%
LI_23	LI.46	26803	58.6987%
LI_23	LI.47	1	0.0738%
LI_23	LI.48	38425	84.1509%
LI_23	LI.49	22	14.6667%
LI_23	LI.50	73	2.1981%
LI_23	LI.51	16265	35.6204%
LI_23	LI.52	11870	25.9954%
LI_23	LI.53	15569	34.0962%

Blacklist 1	Blacklist 2	Count	Percentage
LI_23	LI.54	684	5.1952%
LI_23	LI.55	25	0.1151%
LI_23	LI.56	31088	68.0829%
LI_23	LI.57	75	0.1643%
LI_23	LI.58	81	0.1774%
LI_23	LI.59	240	1.5161%
LI_23	LI.60	0	0.0000%
LI_23	LI.61	22879	50.1051%
LI_23	LI.62	71	0.7588%
LI_23	LI.63	28876	63.2386%
LI_23	LI.64	2415	5.5625%
LI_23	LI.65	38846	85.0729%
LI_23	LI.66	4	0.1261%
LI_23	LI.67	6499	19.3682%
LI_23	LI.68	1	0.0094%
LI_23	LI.69	37417	81.9434%
LI_23	LI.70	18743	41.0473%
LI_23	LI.71	12175	26.6633%
LI_23	LI.72	2209	4.8377%
LI_23	LI.73	7813	17.1105%
LI_23	LI.74	10	1.2392%
LI_23	LI.75	471	1.6799%
LI_23	LI.76	7400	16.2060%
LI_23	LI.77	36285	79.4643%
LI_23	LI.78	61	3.0793%
LI_23	LI.79	10756	23.5557%
LI_23	LI.80	14344	31.4134%
LI_23	LI.81	3698	8.0986%
LI_23	LI.82	18370	40.2304%
LI_23	LI.83	968	3.1931%
LI_23	LI.84	1	0.0514%
LI_23	LI.85	34	1.7535%
LI_23	LI.86	25	0.0548%
LI_23	LI.87	5	0.0110%
LI_23	LI.88	8466	18.5406%
LI_24	LI.25	0	0.0000%
LI_24	LI.26	1	0.0164%
LI_24	LI.27	7	0.3898%
LI_24	LI.28	58	1.1675%

Blacklist 1	Blacklist 2	Count	Percentage
LI_24	LI_29	343	3.7564%
LI_24	LI_30	759	8.3123%
LI_24	LI_31	5	0.2735%
LI_24	LI_32	0	0.0000%
LI_24	LI_33	0	0.0000%
LI_24	LI_34	444	4.8626%
LI_24	LI_35	510	5.5854%
LI_24	LI_36	21	1.1966%
LI_24	LI_37	172	1.8837%
LI_24	LI_38	0	0.0000%
LI_24	LI_39	127	1.3909%
LI_24	LI_40	2	0.1613%
LI_24	LI_41	3	0.3272%
LI_24	LI_42	30	0.3286%
LI_24	LI_43	82	0.8980%
LI_24	LI_44	261	2.8584%
LI_24	LI_45	5	3.7594%
LI_24	LI_46	633	6.9324%
LI_24	LI_47	23	1.6974%
LI_24	LI_48	1853	20.2935%
LI_24	LI_49	2	1.3333%
LI_24	LI_50	19	0.5721%
LI_24	LI_51	328	3.5922%
LI_24	LI_52	269	2.9460%
LI_24	LI_53	744	8.1481%
LI_24	LI_54	96	1.0514%
LI_24	LI_55	38	0.4162%
LI_24	LI_56	494	5.4101%
LI_24	LI_57	90	0.9857%
LI_24	LI_58	2	0.0219%
LI_24	LI_59	73	0.7995%
LI_24	LI_60	0	0.0000%
LI_24	LI_61	555	6.0782%
LI_24	LI_62	1494	16.3618%
LI_24	LI_63	875	9.5827%
LI_24	LI_64	161	1.7632%
LI_24	LI_65	929	10.1741%
LI_24	LI_66	7	0.2207%
LI_24	LI_67	51	0.5585%

Blacklist 1	Blacklist 2	Count	Percentage
LI_24	LI.68	0	0.0000%
LI_24	LI.69	505	5.5306%
LI_24	LI.70	1211	13.2625%
LI_24	LI.71	790	8.6518%
LI_24	LI.72	498	5.4539%
LI_24	LI.73	535	5.8592%
LI_24	LI.74	11	1.3631%
LI_24	LI.75	177	1.9385%
LI_24	LI.76	837	9.1666%
LI_24	LI.77	513	5.6182%
LI_24	LI.78	7	0.3534%
LI_24	LI.79	328	3.5922%
LI_24	LI.80	166	1.8180%
LI_24	LI.81	37	0.4052%
LI_24	LI.82	496	5.4320%
LI_24	LI.83	1	0.0110%
LI_24	LI.84	0	0.0000%
LI_24	LI.85	2	0.1031%
LI_24	LI.86	304	3.3293%
LI_24	LI.87	0	0.0000%
LI_24	LI.88	339	3.7126%
LI_25	LI.26	0	0.0000%
LI_25	LI.27	2	0.1114%
LI_25	LI.28	0	0.0000%
LI_25	LI.29	1	0.0090%
LI_25	LI.30	18	0.1626%
LI_25	LI.31	3	0.1641%
LI_25	LI.32	3	0.1022%
LI_25	LI.33	0	0.0000%
LI_25	LI.34	6	0.0542%
LI_25	LI.35	1	0.0090%
LI_25	LI.36	1	0.0570%
LI_25	LI.37	0	0.0000%
LI_25	LI.38	0	0.0000%
LI_25	LI.39	323	2.9170%
LI_25	LI.40	0	0.0000%
LI_25	LI.41	34	3.7077%
LI_25	LI.42	1	0.0090%
LI_25	LI.43	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI_25	LI.44	6	0.0542%
LI_25	LI.45	0	0.0000%
LI_25	LI.46	4	0.0361%
LI_25	LI.47	0	0.0000%
LI_25	LI.48	76	0.6864%
LI_25	LI.49	0	0.0000%
LI_25	LI.50	0	0.0000%
LI_25	LI.51	8	0.0722%
LI_25	LI.52	2	0.0181%
LI_25	LI.53	0	0.0000%
LI_25	LI.54	0	0.0000%
LI_25	LI.55	1	0.0090%
LI_25	LI.56	17	0.1535%
LI_25	LI.57	6	0.0542%
LI_25	LI.58	1	0.0090%
LI_25	LI.59	0	0.0000%
LI_25	LI.60	7	5.6452%
LI_25	LI.61	8	0.0722%
LI_25	LI.62	0	0.0000%
LI_25	LI.63	14	0.1264%
LI_25	LI.64	1	0.0090%
LI_25	LI.65	36	0.3251%
LI_25	LI.66	20	0.6305%
LI_25	LI.67	2	0.0181%
LI_25	LI.68	10593	100.0000%
LI_25	LI.69	10	0.0903%
LI_25	LI.70	3	0.0271%
LI_25	LI.71	27	0.2438%
LI_25	LI.72	42	0.3793%
LI_25	LI.73	10	0.0903%
LI_25	LI.74	0	0.0000%
LI_25	LI.75	1	0.0090%
LI_25	LI.76	9	0.0813%
LI_25	LI.77	11	0.0993%
LI_25	LI.78	0	0.0000%
LI_25	LI.79	5	0.0452%
LI_25	LI.80	0	0.0000%
LI_25	LI.81	0	0.0000%
LI_25	LI.82	2	0.0181%

Blacklist 1	Blacklist 2	Count	Percentage
LI_25	LI.83	0	0.0000%
LI_25	LI.84	3	0.1542%
LI_25	LI.85	0	0.0000%
LI_25	LI.86	58	0.5238%
LI_25	LI.87	3	0.0271%
LI_25	LI.88	109	0.9844%
LI_26	LI.27	0	0.0000%
LI_26	LI.28	76	1.5298%
LI_26	LI.29	42	0.6895%
LI_26	LI.30	221	3.6283%
LI_26	LI.31	0	0.0000%
LI_26	LI.32	0	0.0000%
LI_26	LI.33	0	0.0000%
LI_26	LI.34	2386	39.1725%
LI_26	LI.35	27	0.4433%
LI_26	LI.36	11	0.6268%
LI_26	LI.37	184	3.0209%
LI_26	LI.38	0	0.0000%
LI_26	LI.39	1	0.0164%
LI_26	LI.40	0	0.0000%
LI_26	LI.41	1	0.1091%
LI_26	LI.42	0	0.0000%
LI_26	LI.43	2	0.0328%
LI_26	LI.44	1903	31.2428%
LI_26	LI.45	1	0.7519%
LI_26	LI.46	37	0.6075%
LI_26	LI.47	0	0.0000%
LI_26	LI.48	153	2.5119%
LI_26	LI.49	2	1.3333%
LI_26	LI.50	3	0.0903%
LI_26	LI.51	2876	47.2172%
LI_26	LI.52	230	3.7761%
LI_26	LI.53	17	0.2791%
LI_26	LI.54	62	1.0179%
LI_26	LI.55	0	0.0000%
LI_26	LI.56	5023	82.4659%
LI_26	LI.57	0	0.0000%
LI_26	LI.58	173	2.8403%
LI_26	LI.59	2	0.0328%

Blacklist 1	Blacklist 2	Count	Percentage
LI_26	LI.60	0	0.0000%
LI_26	LI.61	3	0.0493%
LI_26	LI.62	3	0.0493%
LI_26	LI.63	332	5.4507%
LI_26	LI.64	1	0.0164%
LI_26	LI.65	1492	24.4952%
LI_26	LI.66	0	0.0000%
LI_26	LI.67	277	4.5477%
LI_26	LI.68	0	0.0000%
LI_26	LI.69	5912	97.0612%
LI_26	LI.70	13	0.2134%
LI_26	LI.71	21	0.3448%
LI_26	LI.72	2	0.0328%
LI_26	LI.73	40	0.6567%
LI_26	LI.74	0	0.0000%
LI_26	LI.75	19	0.3119%
LI_26	LI.76	3921	64.3737%
LI_26	LI.77	2787	45.7560%
LI_26	LI.78	1	0.0505%
LI_26	LI.79	163	2.6761%
LI_26	LI.80	5	0.0821%
LI_26	LI.81	726	11.9192%
LI_26	LI.82	520	8.5372%
LI_26	LI.83	2814	46.1993%
LI_26	LI.84	0	0.0000%
LI_26	LI.85	0	0.0000%
LI_26	LI.86	0	0.0000%
LI_26	LI.87	0	0.0000%
LI_26	LI.88	3002	49.2858%
LI_27	LI.28	0	0.0000%
LI_27	LI.29	10	0.5568%
LI_27	LI.30	110	6.1247%
LI_27	LI.31	13	0.7238%
LI_27	LI.32	0	0.0000%
LI_27	LI.33	0	0.0000%
LI_27	LI.34	40	2.2272%
LI_27	LI.35	34	1.8931%
LI_27	LI.36	0	0.0000%
LI_27	LI.37	16	0.8909%

Blacklist 1	Blacklist 2	Count	Percentage
LI_27	LI_38	0	0.0000%
LI_27	LI_39	8	0.4454%
LI_27	LI_40	18	1.4516%
LI_27	LI_41	6	0.6543%
LI_27	LI_42	8	0.4454%
LI_27	LI_43	5	0.2784%
LI_27	LI_44	36	2.0045%
LI_27	LI_45	0	0.0000%
LI_27	LI_46	62	3.4521%
LI_27	LI_47	8	0.5904%
LI_27	LI_48	400	22.2717%
LI_27	LI_49	0	0.0000%
LI_27	LI_50	0	0.0000%
LI_27	LI_51	71	3.9532%
LI_27	LI_52	46	2.5612%
LI_27	LI_53	7	0.3898%
LI_27	LI_54	5	0.2784%
LI_27	LI_55	8	0.4454%
LI_27	LI_56	94	5.2339%
LI_27	LI_57	21	1.1693%
LI_27	LI_58	0	0.0000%
LI_27	LI_59	6	0.3341%
LI_27	LI_60	0	0.0000%
LI_27	LI_61	18	1.0022%
LI_27	LI_62	1	0.0557%
LI_27	LI_63	81	4.5100%
LI_27	LI_64	4	0.2227%
LI_27	LI_65	148	8.2405%
LI_27	LI_66	28	1.5590%
LI_27	LI_67	2	0.1114%
LI_27	LI_68	2	0.1114%
LI_27	LI_69	84	4.6771%
LI_27	LI_70	40	2.2272%
LI_27	LI_71	256	14.2539%
LI_27	LI_72	1412	78.6192%
LI_27	LI_73	41	2.2829%
LI_27	LI_74	0	0.0000%
LI_27	LI_75	15	0.8352%
LI_27	LI_76	60	3.3408%

Blacklist 1	Blacklist 2	Count	Percentage
LI_27	LI.77	71	3.9532%
LI_27	LI.78	0	0.0000%
LI_27	LI.79	36	2.0045%
LI_27	LI.80	11	0.6125%
LI_27	LI.81	6	0.3341%
LI_27	LI.82	39	2.1715%
LI_27	LI.83	1	0.0557%
LI_27	LI.84	1	0.0557%
LI_27	LI.85	0	0.0000%
LI_27	LI.86	78	4.3430%
LI_27	LI.87	0	0.0000%
LI_27	LI.88	59	3.2851%
LI_28	LI.29	922	18.5588%
LI_28	LI.30	2636	53.0596%
LI_28	LI.31	0	0.0000%
LI_28	LI.32	0	0.0000%
LI_28	LI.33	55	29.7297%
LI_28	LI.34	3086	62.1176%
LI_28	LI.35	855	17.2101%
LI_28	LI.36	171	9.7436%
LI_28	LI.37	1138	22.9066%
LI_28	LI.38	1	0.0201%
LI_28	LI.39	235	4.7303%
LI_28	LI.40	0	0.0000%
LI_28	LI.41	3	0.3272%
LI_28	LI.42	17	0.3422%
LI_28	LI.43	172	3.4622%
LI_28	LI.44	1388	27.9388%
LI_28	LI.45	16	12.0301%
LI_28	LI.46	1608	32.3671%
LI_28	LI.47	0	0.0000%
LI_28	LI.48	2536	51.0467%
LI_28	LI.49	12	8.0000%
LI_28	LI.50	278	8.3710%
LI_28	LI.51	1229	24.7383%
LI_28	LI.52	844	16.9887%
LI_28	LI.53	685	13.7882%
LI_28	LI.54	568	11.4332%
LI_28	LI.55	12	0.2415%

Blacklist 1	Blacklist 2	Count	Percentage
LI_28	LI.56	3689	74.2552%
LI_28	LI.57	38	0.7649%
LI_28	LI.58	721	14.5129%
LI_28	LI.59	287	5.7770%
LI_28	LI.60	0	0.0000%
LI_28	LI.61	1439	28.9654%
LI_28	LI.62	146	2.9388%
LI_28	LI.63	3467	69.7866%
LI_28	LI.64	639	12.8623%
LI_28	LI.65	2848	57.3269%
LI_28	LI.66	1	0.0315%
LI_28	LI.67	1078	21.6989%
LI_28	LI.68	0	0.0000%
LI_28	LI.69	3720	74.8792%
LI_28	LI.70	1011	20.3502%
LI_28	LI.71	1165	23.4501%
LI_28	LI.72	177	3.5628%
LI_28	LI.73	1061	21.3567%
LI_28	LI.74	148	18.3395%
LI_28	LI.75	690	13.8889%
LI_28	LI.76	3190	64.2110%
LI_28	LI.77	3442	69.2834%
LI_28	LI.78	35	1.7668%
LI_28	LI.79	1993	40.1167%
LI_28	LI.80	589	11.8559%
LI_28	LI.81	1282	25.8052%
LI_28	LI.82	1917	38.5870%
LI_28	LI.83	1591	32.0250%
LI_28	LI.84	0	0.0000%
LI_28	LI.85	35	1.8051%
LI_28	LI.86	10	0.2013%
LI_28	LI.87	0	0.0000%
LI_28	LI.88	2707	54.4887%
LI_29	LI.30	97671	56.2653%
LI_29	LI.31	8	0.4376%
LI_29	LI.32	1	0.0341%
LI_29	LI.33	10	5.4054%
LI_29	LI.34	59856	34.4812%
LI_29	LI.35	15402	21.9699%

Blacklist 1	Blacklist 2	Count	Percentage
LI_29	LI.36	443	25.2422%
LI_29	LI.37	3354	6.0242%
LI_29	LI.38	3	0.0058%
LI_29	LI.39	9736	6.5297%
LI_29	LI.40	7	0.5645%
LI_29	LI.41	15	1.6358%
LI_29	LI.42	2080	1.5343%
LI_29	LI.43	5241	6.5533%
LI_29	LI.44	30267	17.4359%
LI_29	LI.45	62	46.6165%
LI_29	LI.46	73306	42.2294%
LI_29	LI.47	7	0.5166%
LI_29	LI.48	141249	81.3693%
LI_29	LI.49	18	12.0000%
LI_29	LI.50	526	15.8386%
LI_29	LI.51	35158	20.2535%
LI_29	LI.52	36128	20.8123%
LI_29	LI.53	17915	10.3203%
LI_29	LI.54	1316	9.9954%
LI_29	LI.55	140	0.6443%
LI_29	LI.56	59657	34.3666%
LI_29	LI.57	575	0.5176%
LI_29	LI.58	85	0.0490%
LI_29	LI.59	3955	24.9842%
LI_29	LI.60	0	0.0000%
LI_29	LI.61	49214	28.3507%
LI_29	LI.62	524	5.6001%
LI_29	LI.63	86340	49.7379%
LI_29	LI.64	10869	25.0345%
LI_29	LI.65	118827	68.4527%
LI_29	LI.66	14	0.4414%
LI_29	LI.67	4449	13.2588%
LI_29	LI.68	1	0.0094%
LI_29	LI.69	63263	36.4439%
LI_29	LI.70	43378	24.9888%
LI_29	LI.71	42653	24.5711%
LI_29	LI.72	4743	2.7323%
LI_29	LI.73	49237	28.3640%
LI_29	LI.74	309	38.2900%

Blacklist 1	Blacklist 2	Count	Percentage
LI_29	LI.75	5988	21.3567%
LI_29	LI.76	54766	31.5491%
LI_29	LI.77	78432	45.1823%
LI_29	LI.78	279	14.0838%
LI_29	LI.79	25187	14.5095%
LI_29	LI.80	15130	12.7208%
LI_29	LI.81	4283	7.0557%
LI_29	LI.82	37146	21.3987%
LI_29	LI.83	436	1.4382%
LI_29	LI.84	18	0.9254%
LI_29	LI.85	83	4.2806%
LI_29	LI.86	438	0.2523%
LI_29	LI.87	11	0.0063%
LI_29	LI.88	26774	15.4237%
LI_30	LI.31	80	4.3764%
LI_30	LI.32	7	0.2386%
LI_30	LI.33	78	42.1622%
LI_30	LI.34	454758	28.2284%
LI_30	LI.35	50410	71.9064%
LI_30	LI.36	1293	73.6752%
LI_30	LI.37	22109	39.7108%
LI_30	LI.38	407	0.7934%
LI_30	LI.39	63471	42.5683%
LI_30	LI.40	128	10.3226%
LI_30	LI.41	104	11.3413%
LI_30	LI.42	21844	16.1134%
LI_30	LI.43	24983	31.2385%
LI_30	LI.44	228552	41.8587%
LI_30	LI.45	133	100.0000%
LI_30	LI.46	992140	50.0585%
LI_30	LI.47	55	4.0590%
LI_30	LI.48	2944645	84.9231%
LI_30	LI.49	78	52.0000%
LI_30	LI.50	1897	57.1213%
LI_30	LI.51	178371	51.6921%
LI_30	LI.52	296093	49.9196%
LI_30	LI.53	167513	63.8259%
LI_30	LI.54	4545	34.5207%
LI_30	LI.55	1057	4.8645%

Blacklist 1	Blacklist 2	Count	Percentage
LI.30	LI.56	561400	53.1494%
LI.30	LI.57	4156	3.7408%
LI.30	LI.58	2261	0.3102%
LI.30	LI.59	12185	76.9741%
LI.30	LI.60	0	0.0000%
LI.30	LI.61	765342	61.3010%
LI.30	LI.62	1222	13.0597%
LI.30	LI.63	1758946	50.7277%
LI.30	LI.64	37416	86.1802%
LI.30	LI.65	2162100	62.3546%
LI.30	LI.66	189	5.9584%
LI.30	LI.67	27241	81.1831%
LI.30	LI.68	18	0.1699%
LI.30	LI.69	565693	40.7723%
LI.30	LI.70	467604	58.1819%
LI.30	LI.71	213317	36.0392%
LI.30	LI.72	25862	1.3498%
LI.30	LI.73	597474	43.2277%
LI.30	LI.74	601	74.4734%
LI.30	LI.75	21931	78.2188%
LI.30	LI.76	363311	42.5242%
LI.30	LI.77	1294590	46.9359%
LI.30	LI.78	1286	64.9167%
LI.30	LI.79	167576	72.2055%
LI.30	LI.80	84469	71.0188%
LI.30	LI.81	15657	25.7928%
LI.30	LI.82	299831	71.1189%
LI.30	LI.83	4443	14.6561%
LI.30	LI.84	66	3.3933%
LI.30	LI.85	438	22.5890%
LI.30	LI.86	3069	0.0885%
LI.30	LI.87	35	0.0059%
LI.30	LI.88	122569	36.4994%
LI.31	LI.32	0	0.0000%
LI.31	LI.33	0	0.0000%
LI.31	LI.34	22	1.2035%
LI.31	LI.35	29	1.5864%
LI.31	LI.36	0	0.0000%
LI.31	LI.37	5	0.2735%

Blacklist 1	Blacklist 2	Count	Percentage
LI.31	LI.38	0	0.0000%
LI.31	LI.39	4	0.2188%
LI.31	LI.40	0	0.0000%
LI.31	LI.41	46	5.0164%
LI.31	LI.42	7	0.3829%
LI.31	LI.43	2	0.1094%
LI.31	LI.44	24	1.3129%
LI.31	LI.45	0	0.0000%
LI.31	LI.46	38	2.0788%
LI.31	LI.47	10	0.7380%
LI.31	LI.48	213	11.6521%
LI.31	LI.49	0	0.0000%
LI.31	LI.50	2	0.1094%
LI.31	LI.51	35	1.9147%
LI.31	LI.52	19	1.0394%
LI.31	LI.53	2	0.1094%
LI.31	LI.54	2	0.1094%
LI.31	LI.55	9	0.4923%
LI.31	LI.56	82	4.4858%
LI.31	LI.57	14	0.7659%
LI.31	LI.58	0	0.0000%
LI.31	LI.59	1	0.0547%
LI.31	LI.60	0	0.0000%
LI.31	LI.61	19	1.0394%
LI.31	LI.62	0	0.0000%
LI.31	LI.63	56	3.0635%
LI.31	LI.64	6	0.3282%
LI.31	LI.65	132	7.2210%
LI.31	LI.66	363	19.8578%
LI.31	LI.67	2	0.1094%
LI.31	LI.68	3	0.1641%
LI.31	LI.69	75	4.1028%
LI.31	LI.70	23	1.2582%
LI.31	LI.71	37	2.0241%
LI.31	LI.72	133	7.2757%
LI.31	LI.73	34	1.8600%
LI.31	LI.74	0	0.0000%
LI.31	LI.75	5	0.2735%
LI.31	LI.76	52	2.8446%

Blacklist 1	Blacklist 2	Count	Percentage
LI.31	LI.77	54	2.9540%
LI.31	LI.78	0	0.0000%
LI.31	LI.79	24	1.3129%
LI.31	LI.80	1	0.0547%
LI.31	LI.81	2	0.1094%
LI.31	LI.82	24	1.3129%
LI.31	LI.83	0	0.0000%
LI.31	LI.84	0	0.0000%
LI.31	LI.85	0	0.0000%
LI.31	LI.86	5	0.2735%
LI.31	LI.87	0	0.0000%
LI.31	LI.88	148	8.0963%
LI.32	LI.33	0	0.0000%
LI.32	LI.34	3	0.1022%
LI.32	LI.35	1	0.0341%
LI.32	LI.36	0	0.0000%
LI.32	LI.37	0	0.0000%
LI.32	LI.38	2	0.0682%
LI.32	LI.39	0	0.0000%
LI.32	LI.40	0	0.0000%
LI.32	LI.41	0	0.0000%
LI.32	LI.42	0	0.0000%
LI.32	LI.43	1	0.0341%
LI.32	LI.44	1	0.0341%
LI.32	LI.45	0	0.0000%
LI.32	LI.46	4	0.1363%
LI.32	LI.47	0	0.0000%
LI.32	LI.48	35	1.1929%
LI.32	LI.49	0	0.0000%
LI.32	LI.50	0	0.0000%
LI.32	LI.51	1	0.0341%
LI.32	LI.52	0	0.0000%
LI.32	LI.53	1	0.0341%
LI.32	LI.54	0	0.0000%
LI.32	LI.55	0	0.0000%
LI.32	LI.56	4	0.1363%
LI.32	LI.57	0	0.0000%
LI.32	LI.58	10	0.3408%
LI.32	LI.59	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI.32	LI.60	2	1.6129%
LI.32	LI.61	6	0.2045%
LI.32	LI.62	0	0.0000%
LI.32	LI.63	7	0.2386%
LI.32	LI.64	0	0.0000%
LI.32	LI.65	14	0.4772%
LI.32	LI.66	0	0.0000%
LI.32	LI.67	0	0.0000%
LI.32	LI.68	3	0.1022%
LI.32	LI.69	0	0.0000%
LI.32	LI.70	2	0.0682%
LI.32	LI.71	1	0.0341%
LI.32	LI.72	0	0.0000%
LI.32	LI.73	4	0.1363%
LI.32	LI.74	0	0.0000%
LI.32	LI.75	0	0.0000%
LI.32	LI.76	0	0.0000%
LI.32	LI.77	7	0.2386%
LI.32	LI.78	0	0.0000%
LI.32	LI.79	1	0.0341%
LI.32	LI.80	0	0.0000%
LI.32	LI.81	0	0.0000%
LI.32	LI.82	0	0.0000%
LI.32	LI.83	0	0.0000%
LI.32	LI.84	0	0.0000%
LI.32	LI.85	0	0.0000%
LI.32	LI.86	11	0.3749%
LI.32	LI.87	1	0.0341%
LI.32	LI.88	4	0.1363%
LI.33	LI.34	17	9.1892%
LI.33	LI.35	3	1.6216%
LI.33	LI.36	2	1.0811%
LI.33	LI.37	5	2.7027%
LI.33	LI.38	0	0.0000%
LI.33	LI.39	20	10.8108%
LI.33	LI.40	0	0.0000%
LI.33	LI.41	0	0.0000%
LI.33	LI.42	0	0.0000%
LI.33	LI.43	1	0.5405%

Blacklist 1	Blacklist 2	Count	Percentage
LI.33	LI.44	2	1.0811%
LI.33	LI.45	0	0.0000%
LI.33	LI.46	41	22.1622%
LI.33	LI.47	0	0.0000%
LI.33	LI.48	169	91.3514%
LI.33	LI.49	0	0.0000%
LI.33	LI.50	0	0.0000%
LI.33	LI.51	5	2.7027%
LI.33	LI.52	13	7.0270%
LI.33	LI.53	5	2.7027%
LI.33	LI.54	15	8.1081%
LI.33	LI.55	0	0.0000%
LI.33	LI.56	42	22.7027%
LI.33	LI.57	0	0.0000%
LI.33	LI.58	4	2.1622%
LI.33	LI.59	2	1.0811%
LI.33	LI.60	0	0.0000%
LI.33	LI.61	35	18.9189%
LI.33	LI.62	1	0.5405%
LI.33	LI.63	123	66.4865%
LI.33	LI.64	2	1.0811%
LI.33	LI.65	52	28.1081%
LI.33	LI.66	0	0.0000%
LI.33	LI.67	7	3.7838%
LI.33	LI.68	0	0.0000%
LI.33	LI.69	73	39.4595%
LI.33	LI.70	40	21.6216%
LI.33	LI.71	37	20.0000%
LI.33	LI.72	1	0.5405%
LI.33	LI.73	16	8.6486%
LI.33	LI.74	0	0.0000%
LI.33	LI.75	5	2.7027%
LI.33	LI.76	29	15.6757%
LI.33	LI.77	37	20.0000%
LI.33	LI.78	0	0.0000%
LI.33	LI.79	33	17.8378%
LI.33	LI.80	3	1.6216%
LI.33	LI.81	2	1.0811%
LI.33	LI.82	7	3.7838%

Blacklist 1	Blacklist 2	Count	Percentage
LI.33	LI.83	9	4.8649%
LI.33	LI.84	0	0.0000%
LI.33	LI.85	0	0.0000%
LI.33	LI.86	0	0.0000%
LI.33	LI.87	0	0.0000%
LI.33	LI.88	29	15.6757%
LI.34	LI.35	32160	45.8740%
LI.34	LI.36	1226	69.8575%
LI.34	LI.37	8570	15.3929%
LI.34	LI.38	5274	10.2817%
LI.34	LI.39	20762	13.9245%
LI.34	LI.40	19	1.5323%
LI.34	LI.41	65	7.0883%
LI.34	LI.42	1719	1.2680%
LI.34	LI.43	25540	31.9350%
LI.34	LI.44	139804	25.6047%
LI.34	LI.45	92	69.1729%
LI.34	LI.46	302382	18.7699%
LI.34	LI.47	18	1.3284%
LI.34	LI.48	690840	42.8829%
LI.34	LI.49	105	70.0000%
LI.34	LI.50	1122	33.7850%
LI.34	LI.51	144502	41.8769%
LI.34	LI.52	145437	24.5198%
LI.34	LI.53	75279	28.6828%
LI.34	LI.54	5773	43.8478%
LI.34	LI.55	365	1.6798%
LI.34	LI.56	287013	27.1724%
LI.34	LI.57	1198	1.0783%
LI.34	LI.58	40427	5.5457%
LI.34	LI.59	5904	37.2963%
LI.34	LI.60	0	0.0000%
LI.34	LI.61	193325	15.4846%
LI.34	LI.62	837	8.9452%
LI.34	LI.63	374312	23.2349%
LI.34	LI.64	26406	60.8209%
LI.34	LI.65	578750	35.9251%
LI.34	LI.66	56	1.7654%
LI.34	LI.67	21879	65.2034%

Blacklist 1	Blacklist 2	Count	Percentage
LI.34	LI.68	6	0.0566%
LI.34	LI.69	345388	24.8938%
LI.34	LI.70	166165	20.6752%
LI.34	LI.71	178659	30.1838%
LI.34	LI.72	18195	1.1294%
LI.34	LI.73	162579	11.7627%
LI.34	LI.74	538	66.6667%
LI.34	LI.75	10099	36.0190%
LI.34	LI.76	231817	27.1333%
LI.34	LI.77	467534	29.0215%
LI.34	LI.78	658	33.2155%
LI.34	LI.79	80261	34.5830%
LI.34	LI.80	64234	54.0058%
LI.34	LI.81	22529	37.1135%
LI.34	LI.82	134321	31.8605%
LI.34	LI.83	16324	53.8479%
LI.34	LI.84	27	1.3882%
LI.34	LI.85	241	12.4291%
LI.34	LI.86	4068	0.2525%
LI.34	LI.87	15132	2.5385%
LI.34	LI.88	126888	37.7855%
LI.35	LI.36	348	19.8291%
LI.35	LI.37	4587	8.2389%
LI.35	LI.38	1	0.0019%
LI.35	LI.39	6461	9.2162%
LI.35	LI.40	3	0.2419%
LI.35	LI.41	19	2.0720%
LI.35	LI.42	493	0.7032%
LI.35	LI.43	3822	5.4518%
LI.35	LI.44	18245	26.0252%
LI.35	LI.45	78	58.6466%
LI.35	LI.46	43463	61.9970%
LI.35	LI.47	13	0.9594%
LI.35	LI.48	62106	88.5900%
LI.35	LI.49	22	14.6667%
LI.35	LI.50	700	21.0780%
LI.35	LI.51	19981	28.5015%
LI.35	LI.52	19910	28.4003%
LI.35	LI.53	9156	13.0604%

Blacklist 1	Blacklist 2	Count	Percentage
LI.35	LI.54	951	7.2232%
LI.35	LI.55	188	0.8652%
LI.35	LI.56	30895	44.0696%
LI.35	LI.57	521	0.7432%
LI.35	LI.58	122	0.1740%
LI.35	LI.59	4423	27.9406%
LI.35	LI.60	0	0.0000%
LI.35	LI.61	26096	37.2242%
LI.35	LI.62	556	5.9421%
LI.35	LI.63	42192	60.1840%
LI.35	LI.64	9103	20.9669%
LI.35	LI.65	57938	82.6446%
LI.35	LI.66	59	1.8600%
LI.35	LI.67	3478	10.3651%
LI.35	LI.68	1	0.0094%
LI.35	LI.69	31306	44.6559%
LI.35	LI.70	27909	39.8103%
LI.35	LI.71	18217	25.9853%
LI.35	LI.72	3319	4.7343%
LI.35	LI.73	30119	42.9627%
LI.35	LI.74	384	47.5836%
LI.35	LI.75	6453	23.0152%
LI.35	LI.76	33751	48.1435%
LI.35	LI.77	38091	54.3342%
LI.35	LI.78	394	19.8889%
LI.35	LI.79	18462	26.3348%
LI.35	LI.80	7562	10.7867%
LI.35	LI.81	1894	3.1201%
LI.35	LI.82	26538	37.8546%
LI.35	LI.83	508	1.6757%
LI.35	LI.84	5	0.2571%
LI.35	LI.85	111	5.7246%
LI.35	LI.86	206	0.2938%
LI.35	LI.87	4	0.0057%
LI.35	LI.88	15005	21.4036%
LI.36	LI.37	180	10.2564%
LI.36	LI.38	0	0.0000%
LI.36	LI.39	109	6.2108%
LI.36	LI.40	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI.36	LI.41	2	0.2181%
LI.36	LI.42	4	0.2279%
LI.36	LI.43	133	7.5783%
LI.36	LI.44	866	49.3447%
LI.36	LI.45	4	3.0075%
LI.36	LI.46	1042	59.3732%
LI.36	LI.47	0	0.0000%
LI.36	LI.48	1285	73.2194%
LI.36	LI.49	4	2.6667%
LI.36	LI.50	49	2.7920%
LI.36	LI.51	685	39.0313%
LI.36	LI.52	346	19.7151%
LI.36	LI.53	723	41.1966%
LI.36	LI.54	114	6.4957%
LI.36	LI.55	2	0.1140%
LI.36	LI.56	1523	86.7806%
LI.36	LI.57	10	0.5698%
LI.36	LI.58	98	5.5840%
LI.36	LI.59	121	6.8946%
LI.36	LI.60	0	0.0000%
LI.36	LI.61	949	54.0741%
LI.36	LI.62	34	1.9373%
LI.36	LI.63	1428	81.3675%
LI.36	LI.64	336	19.1453%
LI.36	LI.65	1366	77.8348%
LI.36	LI.66	0	0.0000%
LI.36	LI.67	310	17.6638%
LI.36	LI.68	1	0.0570%
LI.36	LI.69	1435	81.7664%
LI.36	LI.70	811	46.2108%
LI.36	LI.71	446	25.4131%
LI.36	LI.72	70	3.9886%
LI.36	LI.73	774	44.1026%
LI.36	LI.74	17	2.1066%
LI.36	LI.75	213	12.1368%
LI.36	LI.76	1119	63.7607%
LI.36	LI.77	1462	83.3048%
LI.36	LI.78	22	1.2536%
LI.36	LI.79	1083	61.7094%

Blacklist 1	Blacklist 2	Count	Percentage
LI.36	LI.80	397	22.6211%
LI.36	LI.81	306	17.4359%
LI.36	LI.82	1066	60.7407%
LI.36	LI.83	261	14.8718%
LI.36	LI.84	0	0.0000%
LI.36	LI.85	7	0.3989%
LI.36	LI.86	8	0.4558%
LI.36	LI.87	0	0.0000%
LI.36	LI.88	884	50.3704%
LI.37	LI.38	1	0.0019%
LI.37	LI.39	1225	2.2003%
LI.37	LI.40	5	0.4032%
LI.37	LI.41	10	1.0905%
LI.37	LI.42	332	0.5963%
LI.37	LI.43	681	1.2232%
LI.37	LI.44	4583	8.2317%
LI.37	LI.45	35	26.3158%
LI.37	LI.46	13786	24.7616%
LI.37	LI.47	1	0.0738%
LI.37	LI.48	34946	62.7678%
LI.37	LI.49	5	3.3333%
LI.37	LI.50	818	24.6311%
LI.37	LI.51	4287	7.7000%
LI.37	LI.52	4431	7.9587%
LI.37	LI.53	3361	6.0368%
LI.37	LI.54	1071	8.1346%
LI.37	LI.55	100	0.4602%
LI.37	LI.56	15531	27.8958%
LI.37	LI.57	364	0.6538%
LI.37	LI.58	741	1.3309%
LI.37	LI.59	1259	7.9533%
LI.37	LI.60	0	0.0000%
LI.37	LI.61	10953	19.6731%
LI.37	LI.62	347	3.7085%
LI.37	LI.63	25997	46.6942%
LI.37	LI.64	2842	6.5460%
LI.37	LI.65	25585	45.9542%
LI.37	LI.66	11	0.3468%
LI.37	LI.67	1079	3.2156%

Blacklist 1	Blacklist 2	Count	Percentage
LI.37	LI.68	0	0.0000%
LI.37	LI.69	14414	25.8895%
LI.37	LI.70	6522	11.7144%
LI.37	LI.71	3560	6.3943%
LI.37	LI.72	2033	3.6515%
LI.37	LI.73	8756	15.7270%
LI.37	LI.74	190	23.5440%
LI.37	LI.75	3842	13.7028%
LI.37	LI.76	17564	31.5474%
LI.37	LI.77	15951	28.6502%
LI.37	LI.78	187	9.4397%
LI.37	LI.79	8067	14.4894%
LI.37	LI.80	1511	2.7140%
LI.37	LI.81	1709	3.0696%
LI.37	LI.82	11130	19.9910%
LI.37	LI.83	2291	7.5573%
LI.37	LI.84	3	0.1542%
LI.37	LI.85	68	3.5070%
LI.37	LI.86	291	0.5227%
LI.37	LI.87	1	0.0018%
LI.37	LI.88	7331	13.1675%
LI.38	LI.39	22	0.0429%
LI.38	LI.40	0	0.0000%
LI.38	LI.41	0	0.0000%
LI.38	LI.42	3	0.0058%
LI.38	LI.43	539	1.0508%
LI.38	LI.44	2380	4.6398%
LI.38	LI.45	0	0.0000%
LI.38	LI.46	200	0.3899%
LI.38	LI.47	0	0.0000%
LI.38	LI.48	2088	4.0706%
LI.38	LI.49	0	0.0000%
LI.38	LI.50	0	0.0000%
LI.38	LI.51	18	0.0351%
LI.38	LI.52	41	0.0799%
LI.38	LI.53	9	0.0175%
LI.38	LI.54	0	0.0000%
LI.38	LI.55	1	0.0046%
LI.38	LI.56	44	0.0858%

Blacklist 1	Blacklist 2	Count	Percentage
LI.38	LI.57	1	0.0019%
LI.38	LI.58	16107	31.4007%
LI.38	LI.59	0	0.0000%
LI.38	LI.60	1	0.8065%
LI.38	LI.61	80	0.1560%
LI.38	LI.62	0	0.0000%
LI.38	LI.63	379	0.7389%
LI.38	LI.64	2	0.0046%
LI.38	LI.65	895	1.7448%
LI.38	LI.66	0	0.0000%
LI.38	LI.67	1	0.0030%
LI.38	LI.68	0	0.0000%
LI.38	LI.69	53	0.1033%
LI.38	LI.70	57	0.1111%
LI.38	LI.71	12	0.0234%
LI.38	LI.72	16	0.0312%
LI.38	LI.73	122	0.2378%
LI.38	LI.74	0	0.0000%
LI.38	LI.75	1	0.0036%
LI.38	LI.76	32	0.0624%
LI.38	LI.77	534	1.0410%
LI.38	LI.78	0	0.0000%
LI.38	LI.79	7	0.0136%
LI.38	LI.80	2	0.0039%
LI.38	LI.81	0	0.0000%
LI.38	LI.82	25	0.0487%
LI.38	LI.83	0	0.0000%
LI.38	LI.84	0	0.0000%
LI.38	LI.85	0	0.0000%
LI.38	LI.86	292	0.5693%
LI.38	LI.87	0	0.0000%
LI.38	LI.88	15	0.0292%
LI.39	LI.40	3	0.2419%
LI.39	LI.41	6	0.6543%
LI.39	LI.42	204	0.1505%
LI.39	LI.43	1601	2.0019%
LI.39	LI.44	8242	5.5277%
LI.39	LI.45	13	9.7744%
LI.39	LI.46	49415	33.1413%

Blacklist 1	Blacklist 2	Count	Percentage
LI.39	LI.47	0	0.0000%
LI.39	LI.48	117887	79.0636%
LI.39	LI.49	3	2.0000%
LI.39	LI.50	216	6.5041%
LI.39	LI.51	9405	6.3077%
LI.39	LI.52	15329	10.2807%
LI.39	LI.53	8999	6.0354%
LI.39	LI.54	192	1.4583%
LI.39	LI.55	28	0.1289%
LI.39	LI.56	18791	12.6026%
LI.39	LI.57	113	0.1017%
LI.39	LI.58	80	0.0537%
LI.39	LI.59	1571	9.9242%
LI.39	LI.60	2	1.6129%
LI.39	LI.61	32099	21.5279%
LI.39	LI.62	135	1.4428%
LI.39	LI.63	59931	40.1941%
LI.39	LI.64	3220	7.4166%
LI.39	LI.65	80326	53.8725%
LI.39	LI.66	5	0.1576%
LI.39	LI.67	1469	4.3779%
LI.39	LI.68	323	3.0492%
LI.39	LI.69	21910	14.6944%
LI.39	LI.70	44118	29.5887%
LI.39	LI.71	12168	8.1607%
LI.39	LI.72	711	0.4768%
LI.39	LI.73	35502	23.8102%
LI.39	LI.74	62	7.6828%
LI.39	LI.75	1950	6.9548%
LI.39	LI.76	23622	15.8426%
LI.39	LI.77	43186	28.9637%
LI.39	LI.78	128	6.4614%
LI.39	LI.79	8434	5.6565%
LI.39	LI.80	4904	4.1231%
LI.39	LI.81	641	1.0560%
LI.39	LI.82	16907	11.3391%
LI.39	LI.83	3	0.0099%
LI.39	LI.84	46	2.3650%
LI.39	LI.85	5	0.2579%

Blacklist 1	Blacklist 2	Count	Percentage
LI.39	LI.86	12	0.0080%
LI.39	LI.87	2	0.0013%
LI.39	LI.88	5118	3.4325%
LI.40	LI.41	3	0.3272%
LI.40	LI.42	17	1.3710%
LI.40	LI.43	2	0.1613%
LI.40	LI.44	11	0.8871%
LI.40	LI.45	0	0.0000%
LI.40	LI.46	40	3.2258%
LI.40	LI.47	2	0.1613%
LI.40	LI.48	200	16.1290%
LI.40	LI.49	0	0.0000%
LI.40	LI.50	1	0.0806%
LI.40	LI.51	15	1.2097%
LI.40	LI.52	11	0.8871%
LI.40	LI.53	21	1.6935%
LI.40	LI.54	1	0.0806%
LI.40	LI.55	2	0.1613%
LI.40	LI.56	44	3.5484%
LI.40	LI.57	6	0.4839%
LI.40	LI.58	0	0.0000%
LI.40	LI.59	1	0.0806%
LI.40	LI.60	0	0.0000%
LI.40	LI.61	90	7.2581%
LI.40	LI.62	1	0.0806%
LI.40	LI.63	67	5.4032%
LI.40	LI.64	6	0.4839%
LI.40	LI.65	133	10.7258%
LI.40	LI.66	1	0.0806%
LI.40	LI.67	0	0.0000%
LI.40	LI.68	0	0.0000%
LI.40	LI.69	54	4.3548%
LI.40	LI.70	23	1.8548%
LI.40	LI.71	29	2.3387%
LI.40	LI.72	320	25.8065%
LI.40	LI.73	31	2.5000%
LI.40	LI.74	0	0.0000%
LI.40	LI.75	4	0.3226%
LI.40	LI.76	29	2.3387%

Blacklist 1	Blacklist 2	Count	Percentage
LI_40	LI_77	34	2.7419%
LI_40	LI_78	0	0.0000%
LI_40	LI_79	11	0.8871%
LI_40	LI_80	1	0.0806%
LI_40	LI_81	3	0.2419%
LI_40	LI_82	25	2.0161%
LI_40	LI_83	0	0.0000%
LI_40	LI_84	1	0.0806%
LI_40	LI_85	1	0.0806%
LI_40	LI_86	36	2.9032%
LI_40	LI_87	0	0.0000%
LI_40	LI_88	15	1.2097%
LI_41	LI_42	7	0.7634%
LI_41	LI_43	2	0.2181%
LI_41	LI_44	37	4.0349%
LI_41	LI_45	1	0.7519%
LI_41	LI_46	42	4.5802%
LI_41	LI_47	11	1.1996%
LI_41	LI_48	324	35.3326%
LI_41	LI_49	1	0.6667%
LI_41	LI_50	4	0.4362%
LI_41	LI_51	99	10.7961%
LI_41	LI_52	38	4.1439%
LI_41	LI_53	9	0.9815%
LI_41	LI_54	6	0.6543%
LI_41	LI_55	7	0.7634%
LI_41	LI_56	162	17.6663%
LI_41	LI_57	20	2.1810%
LI_41	LI_58	0	0.0000%
LI_41	LI_59	3	0.3272%
LI_41	LI_60	0	0.0000%
LI_41	LI_61	51	5.5616%
LI_41	LI_62	0	0.0000%
LI_41	LI_63	103	11.2323%
LI_41	LI_64	5	0.5453%
LI_41	LI_65	188	20.5016%
LI_41	LI_66	153	16.6848%
LI_41	LI_67	4	0.4362%
LI_41	LI_68	34	3.7077%

Blacklist 1	Blacklist 2	Count	Percentage
LI_41	LI.69	109	11.8866%
LI_41	LI.70	18	1.9629%
LI_41	LI.71	107	11.6685%
LI_41	LI.72	121	13.1952%
LI_41	LI.73	78	8.5060%
LI_41	LI.74	1	0.1239%
LI_41	LI.75	7	0.7634%
LI_41	LI.76	76	8.2879%
LI_41	LI.77	57	6.2159%
LI_41	LI.78	1	0.1091%
LI_41	LI.79	56	6.1069%
LI_41	LI.80	5	0.5453%
LI_41	LI.81	12	1.3086%
LI_41	LI.82	50	5.4526%
LI_41	LI.83	1	0.1091%
LI_41	LI.84	0	0.0000%
LI_41	LI.85	0	0.0000%
LI_41	LI.86	6	0.6543%
LI_41	LI.87	0	0.0000%
LI_41	LI.88	707	77.0992%
LI_42	LI.43	345	0.4314%
LI_42	LI.44	1724	1.2717%
LI_42	LI.45	0	0.0000%
LI_42	LI.46	10310	7.6053%
LI_42	LI.47	16	1.1808%
LI_42	LI.48	35344	26.0718%
LI_42	LI.49	0	0.0000%
LI_42	LI.50	8	0.2409%
LI_42	LI.51	1460	1.0770%
LI_42	LI.52	4539	3.3482%
LI_42	LI.53	1785	1.3167%
LI_42	LI.54	88	0.6684%
LI_42	LI.55	10164	46.7762%
LI_42	LI.56	8827	6.5113%
LI_42	LI.57	14368	12.9327%
LI_42	LI.58	41	0.0302%
LI_42	LI.59	440	2.7795%
LI_42	LI.60	0	0.0000%
LI_42	LI.61	11701	8.6313%

Blacklist 1	Blacklist 2	Count	Percentage
LI_42	LI.62	300	3.2062%
LI_42	LI.63	9762	7.2010%
LI_42	LI.64	385	0.8868%
LI_42	LI.65	18222	13.4416%
LI_42	LI.66	23	0.7251%
LI_42	LI.67	165	0.4917%
LI_42	LI.68	1	0.0094%
LI_42	LI.69	4797	3.5386%
LI_42	LI.70	3842	2.8341%
LI_42	LI.71	6311	4.6554%
LI_42	LI.72	16723	12.3359%
LI_42	LI.73	6366	4.6959%
LI_42	LI.74	31	3.8414%
LI_42	LI.75	622	2.2184%
LI_42	LI.76	4293	3.1668%
LI_42	LI.77	3594	2.6511%
LI_42	LI.78	9	0.4543%
LI_42	LI.79	2893	2.1340%
LI_42	LI.80	310	0.2606%
LI_42	LI.81	57	0.0939%
LI_42	LI.82	2923	2.1562%
LI_42	LI.83	1	0.0033%
LI_42	LI.84	2	0.1028%
LI_42	LI.85	1	0.0516%
LI_42	LI.86	561	0.4138%
LI_42	LI.87	0	0.0000%
LI_42	LI.88	937	0.6912%
LI_43	LI.44	9857	12.3251%
LI_43	LI.45	16	12.0301%
LI_43	LI.46	20406	25.5155%
LI_43	LI.47	2	0.1476%
LI_43	LI.48	36782	45.9919%
LI_43	LI.49	12	8.0000%
LI_43	LI.50	69	2.0777%
LI_43	LI.51	10600	13.2541%
LI_43	LI.52	8516	10.6483%
LI_43	LI.53	5878	7.3498%
LI_43	LI.54	242	1.8381%
LI_43	LI.55	70	0.3222%

Blacklist 1	Blacklist 2	Count	Percentage
LI_43	LI_56	16168	20.2163%
LI_43	LI_57	238	0.2976%
LI_43	LI_58	3709	4.6377%
LI_43	LI_59	741	4.6810%
LI_43	LI_60	0	0.0000%
LI_43	LI_61	12488	15.6149%
LI_43	LI_62	119	1.2718%
LI_43	LI_63	19475	24.3514%
LI_43	LI_64	3228	7.4350%
LI_43	LI_65	30447	38.0706%
LI_43	LI_66	2	0.0631%
LI_43	LI_67	1944	5.7935%
LI_43	LI_68	0	0.0000%
LI_43	LI_69	18061	22.5833%
LI_43	LI_70	11542	14.4320%
LI_43	LI_71	12594	15.7474%
LI_43	LI_72	1437	1.7968%
LI_43	LI_73	10635	13.2979%
LI_43	LI_74	61	7.5589%
LI_43	LI_75	1061	3.7842%
LI_43	LI_76	14703	18.3845%
LI_43	LI_77	22988	28.7440%
LI_43	LI_78	86	4.3412%
LI_43	LI_79	6405	8.0088%
LI_43	LI_80	4855	6.0706%
LI_43	LI_81	998	1.6441%
LI_43	LI_82	10596	13.2491%
LI_43	LI_83	22	0.0726%
LI_43	LI_84	1	0.0514%
LI_43	LI_85	6	0.3094%
LI_43	LI_86	280	0.3501%
LI_43	LI_87	1336	1.6705%
LI_43	LI_88	7221	9.0291%
LI_44	LI_45	40	30.0752%
LI_44	LI_46	149431	27.3679%
LI_44	LI_47	17	1.2546%
LI_44	LI_48	304272	55.7266%
LI_44	LI_49	51	34.0000%
LI_44	LI_50	735	22.1319%

Blacklist 1	Blacklist 2	Count	Percentage
LI_44	LI_51	61657	17.8683%
LI_44	LI_52	70431	12.8992%
LI_44	LI_53	28894	11.0092%
LI_44	LI_54	2776	21.0846%
LI_44	LI_55	207	0.9526%
LI_44	LI_56	156517	28.6656%
LI_44	LI_57	560	0.5041%
LI_44	LI_58	23672	4.3355%
LI_44	LI_59	3264	20.6191%
LI_44	LI_60	0	0.0000%
LI_44	LI_61	82091	15.0347%
LI_44	LI_62	461	4.9268%
LI_44	LI_63	189585	34.7220%
LI_44	LI_64	14374	33.1076%
LI_44	LI_65	266591	48.8254%
LI_44	LI_66	64	2.0177%
LI_44	LI_67	6824	20.3368%
LI_44	LI_68	6	0.0566%
LI_44	LI_69	149828	27.4406%
LI_44	LI_70	66490	12.1775%
LI_44	LI_71	66015	12.0905%
LI_44	LI_72	8712	1.5956%
LI_44	LI_73	88341	16.1794%
LI_44	LI_74	269	33.3333%
LI_44	LI_75	5445	19.4201%
LI_44	LI_76	96900	17.7470%
LI_44	LI_77	173819	31.8345%
LI_44	LI_78	273	13.7809%
LI_44	LI_79	50340	21.6906%
LI_44	LI_80	23450	19.7160%
LI_44	LI_81	8705	14.3403%
LI_44	LI_82	67218	15.9439%
LI_44	LI_83	7664	25.2812%
LI_44	LI_84	28	1.4396%
LI_44	LI_85	184	9.4894%
LI_44	LI_86	2521	0.4617%
LI_44	LI_87	10600	1.9414%
LI_44	LI_88	56047	16.6900%
LI_45	LI_46	107	80.4511%

Blacklist 1	Blacklist 2	Count	Percentage
LI.45	LI.47	0	0.0000%
LI.45	LI.48	122	91.7293%
LI.45	LI.49	1	0.7519%
LI.45	LI.50	5	3.7594%
LI.45	LI.51	79	59.3985%
LI.45	LI.52	33	24.8120%
LI.45	LI.53	76	57.1429%
LI.45	LI.54	6	4.5113%
LI.45	LI.55	0	0.0000%
LI.45	LI.56	57	42.8571%
LI.45	LI.57	0	0.0000%
LI.45	LI.58	0	0.0000%
LI.45	LI.59	31	23.3083%
LI.45	LI.60	0	0.0000%
LI.45	LI.61	117	87.9699%
LI.45	LI.62	13	9.7744%
LI.45	LI.63	104	78.1955%
LI.45	LI.64	74	55.6391%
LI.45	LI.65	132	99.2481%
LI.45	LI.66	0	0.0000%
LI.45	LI.67	24	18.0451%
LI.45	LI.68	0	0.0000%
LI.45	LI.69	108	81.2030%
LI.45	LI.70	95	71.4286%
LI.45	LI.71	73	54.8872%
LI.45	LI.72	6	4.5113%
LI.45	LI.73	98	73.6842%
LI.45	LI.74	20	15.0376%
LI.45	LI.75	78	58.6466%
LI.45	LI.76	109	81.9549%
LI.45	LI.77	105	78.9474%
LI.45	LI.78	12	9.0226%
LI.45	LI.79	89	66.9173%
LI.45	LI.80	54	40.6015%
LI.45	LI.81	5	3.7594%
LI.45	LI.82	120	90.2256%
LI.45	LI.83	0	0.0000%
LI.45	LI.84	0	0.0000%
LI.45	LI.85	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI_45	LI_86	1	0.7519%
LI_45	LI_87	0	0.0000%
LI_45	LI_88	58	43.6090%
LI_46	LI_47	34	2.5092%
LI_46	LI_48	1599052	80.6803%
LI_46	LI_49	49	32.6667%
LI_46	LI_50	983	29.5995%
LI_46	LI_51	128118	37.1288%
LI_46	LI_52	191960	32.3634%
LI_46	LI_53	114002	43.4371%
LI_46	LI_54	2559	19.4364%
LI_46	LI_55	693	3.1893%
LI_46	LI_56	343334	32.5044%
LI_46	LI_57	2527	2.2746%
LI_46	LI_58	1146	0.1572%
LI_46	LI_59	10546	66.6203%
LI_46	LI_60	0	0.0000%
LI_46	LI_61	388675	31.1314%
LI_46	LI_62	992	10.6017%
LI_46	LI_63	852284	43.0021%
LI_46	LI_64	30484	70.2137%
LI_46	LI_65	1188786	59.9803%
LI_46	LI_66	81	2.5536%
LI_46	LI_67	21696	64.6580%
LI_46	LI_68	4	0.0378%
LI_46	LI_69	330128	23.7940%
LI_46	LI_70	328240	40.8415%
LI_46	LI_71	178989	30.2396%
LI_46	LI_72	16798	0.8767%
LI_46	LI_73	386550	27.9672%
LI_46	LI_74	440	54.5229%
LI_46	LI_75	16908	60.3039%
LI_46	LI_76	248174	29.0479%
LI_46	LI_77	650029	32.7973%
LI_46	LI_78	1021	51.5396%
LI_46	LI_79	112363	48.4152%
LI_46	LI_80	57425	48.2811%
LI_46	LI_81	10227	16.8476%
LI_46	LI_82	198427	47.0662%

Blacklist 1	Blacklist 2	Count	Percentage
LI_46	LI_83	434	1.4316%
LI_46	LI_84	26	1.3368%
LI_46	LI_85	143	7.3749%
LI_46	LI_86	3234	0.1632%
LI_46	LI_87	24	0.0040%
LI_46	LI_88	79923	23.8000%
LI_47	LI_48	90	6.6421%
LI_47	LI_49	1	0.6667%
LI_47	LI_50	0	0.0000%
LI_47	LI_51	16	1.1808%
LI_47	LI_52	15	1.1070%
LI_47	LI_53	14	1.0332%
LI_47	LI_54	1	0.0738%
LI_47	LI_55	12	0.8856%
LI_47	LI_56	38	2.8044%
LI_47	LI_57	24	1.7712%
LI_47	LI_58	0	0.0000%
LI_47	LI_59	3	0.2214%
LI_47	LI_60	0	0.0000%
LI_47	LI_61	28	2.0664%
LI_47	LI_62	5	0.3690%
LI_47	LI_63	55	4.0590%
LI_47	LI_64	5	0.3690%
LI_47	LI_65	70	5.1661%
LI_47	LI_66	5	0.3690%
LI_47	LI_67	0	0.0000%
LI_47	LI_68	0	0.0000%
LI_47	LI_69	24	1.7712%
LI_47	LI_70	21	1.5498%
LI_47	LI_71	25	1.8450%
LI_47	LI_72	290	21.4022%
LI_47	LI_73	24	1.7712%
LI_47	LI_74	1	0.1239%
LI_47	LI_75	2	0.1476%
LI_47	LI_76	27	1.9926%
LI_47	LI_77	31	2.2878%
LI_47	LI_78	0	0.0000%
LI_47	LI_79	10	0.7380%
LI_47	LI_80	2	0.1476%

Blacklist 1	Blacklist 2	Count	Percentage
LI_47	LI_81	2	0.1476%
LI_47	LI_82	13	0.9594%
LI_47	LI_83	0	0.0000%
LI_47	LI_84	0	0.0000%
LI_47	LI_85	0	0.0000%
LI_47	LI_86	20	1.4760%
LI_47	LI_87	0	0.0000%
LI_47	LI_88	30	2.2140%
LI_48	LI_49	96	64.0000%
LI_48	LI_50	1542	46.4318%
LI_48	LI_51	286662	83.0750%
LI_48	LI_52	489469	82.5217%
LI_48	LI_53	214796	81.8417%
LI_48	LI_54	6072	46.1188%
LI_48	LI_55	2747	12.6421%
LI_48	LI_56	770449	72.9407%
LI_48	LI_57	10024	9.0227%
LI_48	LI_58	9897	1.3577%
LI_48	LI_59	15239	96.2666%
LI_48	LI_60	2	1.6129%
LI_48	LI_61	1033508	82.7801%
LI_48	LI_62	2504	26.7607%
LI_48	LI_63	3339498	60.7797%
LI_48	LI_64	37929	87.3618%
LI_48	LI_65	4297602	69.6644%
LI_48	LI_66	513	16.1728%
LI_48	LI_67	28647	85.3733%
LI_48	LI_68	75	0.7080%
LI_48	LI_69	840607	60.5867%
LI_48	LI_70	701902	87.3346%
LI_48	LI_71	519589	87.7828%
LI_48	LI_72	71308	3.7217%
LI_48	LI_73	1026623	74.2769%
LI_48	LI_74	600	74.3494%
LI_48	LI_75	23594	84.1501%
LI_48	LI_76	580801	67.9807%
LI_48	LI_77	2241801	81.2774%
LI_48	LI_78	1480	74.7097%
LI_48	LI_79	191740	82.6174%

Blacklist 1	Blacklist 2	Count	Percentage
LI_48	LI_80	107939	90.7516%
LI_48	LI_81	28006	46.1361%
LI_48	LI_82	353876	83.9382%
LI_48	LI_83	1988	6.5578%
LI_48	LI_84	157	8.0720%
LI_48	LI_85	582	30.0155%
LI_48	LI_86	50697	0.3247%
LI_48	LI_87	42	0.0070%
LI_48	LI_88	191606	57.0577%
LI_49	LI_50	5	3.3333%
LI_49	LI_51	70	46.6667%
LI_49	LI_52	37	24.6667%
LI_49	LI_53	26	17.3333%
LI_49	LI_54	12	8.0000%
LI_49	LI_55	0	0.0000%
LI_49	LI_56	111	74.0000%
LI_49	LI_57	0	0.0000%
LI_49	LI_58	2	1.3333%
LI_49	LI_59	3	2.0000%
LI_49	LI_60	0	0.0000%
LI_49	LI_61	46	30.6667%
LI_49	LI_62	2	1.3333%
LI_49	LI_63	79	52.6667%
LI_49	LI_64	17	11.3333%
LI_49	LI_65	130	86.6667%
LI_49	LI_66	0	0.0000%
LI_49	LI_67	16	10.6667%
LI_49	LI_68	0	0.0000%
LI_49	LI_69	118	78.6667%
LI_49	LI_70	11	7.3333%
LI_49	LI_71	74	49.3333%
LI_49	LI_72	9	6.0000%
LI_49	LI_73	9	6.0000%
LI_49	LI_74	1	0.6667%
LI_49	LI_75	6	4.0000%
LI_49	LI_76	93	62.0000%
LI_49	LI_77	129	86.0000%
LI_49	LI_78	1	0.6667%
LI_49	LI_79	39	26.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI_49	LI_80	31	20.6667%
LI_49	LI_81	33	22.0000%
LI_49	LI_82	74	49.3333%
LI_49	LI_83	21	14.0000%
LI_49	LI_84	0	0.0000%
LI_49	LI_85	0	0.0000%
LI_49	LI_86	0	0.0000%
LI_49	LI_87	0	0.0000%
LI_49	LI_88	82	54.6667%
LI_50	LI_51	507	15.2665%
LI_50	LI_52	451	13.5802%
LI_50	LI_53	290	8.7323%
LI_50	LI_54	292	8.7925%
LI_50	LI_55	3	0.0903%
LI_50	LI_56	1808	54.4414%
LI_50	LI_57	14	0.4216%
LI_50	LI_58	47	1.4152%
LI_50	LI_59	293	8.8226%
LI_50	LI_60	0	0.0000%
LI_50	LI_61	876	26.3776%
LI_50	LI_62	49	1.4755%
LI_50	LI_63	2123	63.9265%
LI_50	LI_64	414	12.4661%
LI_50	LI_65	2019	60.7949%
LI_50	LI_66	1	0.0315%
LI_50	LI_67	239	7.1966%
LI_50	LI_68	0	0.0000%
LI_50	LI_69	1774	53.4176%
LI_50	LI_70	612	18.4282%
LI_50	LI_71	413	12.4360%
LI_50	LI_72	80	2.4089%
LI_50	LI_73	790	23.7880%
LI_50	LI_74	46	5.7001%
LI_50	LI_75	1070	32.2192%
LI_50	LI_76	2128	64.0771%
LI_50	LI_77	1534	46.1909%
LI_50	LI_78	7	0.3534%
LI_50	LI_79	1138	34.2668%
LI_50	LI_80	156	4.6974%

Blacklist 1	Blacklist 2	Count	Percentage
LI.50	LI.81	341	10.2680%
LI.50	LI.82	1161	34.9593%
LI.50	LI.83	412	12.4059%
LI.50	LI.84	0	0.0000%
LI.50	LI.85	30	1.5472%
LI.50	LI.86	5	0.1506%
LI.50	LI.87	0	0.0000%
LI.50	LI.88	901	27.1304%
LI.51	LI.52	75134	21.7739%
LI.51	LI.53	28112	10.7113%
LI.51	LI.54	2248	17.0743%
LI.51	LI.55	303	1.3944%
LI.51	LI.56	129646	37.5716%
LI.51	LI.57	1130	1.0171%
LI.51	LI.58	294	0.0852%
LI.51	LI.59	3842	24.2704%
LI.51	LI.60	2	1.6129%
LI.51	LI.61	70809	20.5205%
LI.51	LI.62	560	5.9848%
LI.51	LI.63	136786	39.6408%
LI.51	LI.64	14911	34.3445%
LI.51	LI.65	239577	69.4297%
LI.51	LI.66	91	2.8689%
LI.51	LI.67	9143	27.2478%
LI.51	LI.68	8	0.0755%
LI.51	LI.69	147499	42.7454%
LI.51	LI.70	65912	19.1014%
LI.51	LI.71	99715	28.8975%
LI.51	LI.72	11765	3.4095%
LI.51	LI.73	64789	18.7759%
LI.51	LI.74	349	43.2466%
LI.51	LI.75	6187	22.0665%
LI.51	LI.76	111544	32.3256%
LI.51	LI.77	179903	52.1361%
LI.51	LI.78	426	21.5043%
LI.51	LI.79	40890	17.6188%
LI.51	LI.80	33284	27.9841%
LI.51	LI.81	9452	15.5709%
LI.51	LI.82	61777	17.9031%

Blacklist 1	Blacklist 2	Count	Percentage
LI.51	LI.83	2472	8.1544%
LI.51	LI.84	35	1.7995%
LI.51	LI.85	195	10.0567%
LI.51	LI.86	905	0.2623%
LI.51	LI.87	11	0.0032%
LI.51	LI.88	64094	19.0863%
LI.52	LI.53	30359	11.5674%
LI.52	LI.54	1883	14.3020%
LI.52	LI.55	246	1.1321%
LI.52	LI.56	169599	28.5934%
LI.52	LI.57	853	0.7678%
LI.52	LI.58	235	0.0396%
LI.52	LI.59	4030	25.4580%
LI.52	LI.60	0	0.0000%
LI.52	LI.61	108011	18.2100%
LI.52	LI.62	455	4.8627%
LI.52	LI.63	233312	39.3351%
LI.52	LI.64	11496	26.4787%
LI.52	LI.65	388335	65.4711%
LI.52	LI.66	47	1.4817%
LI.52	LI.67	5841	17.4072%
LI.52	LI.68	2	0.0189%
LI.52	LI.69	157053	26.4782%
LI.52	LI.70	89417	15.0752%
LI.52	LI.71	102365	17.2942%
LI.52	LI.72	10971	1.8496%
LI.52	LI.73	107015	18.0421%
LI.52	LI.74	195	24.1636%
LI.52	LI.75	5949	21.2176%
LI.52	LI.76	113345	19.1093%
LI.52	LI.77	231821	39.0837%
LI.52	LI.78	492	24.8359%
LI.52	LI.79	52582	22.6566%
LI.52	LI.80	25677	21.5884%
LI.52	LI.81	7988	13.1592%
LI.52	LI.82	73794	17.5037%
LI.52	LI.83	842	2.7775%
LI.52	LI.84	30	1.5424%
LI.52	LI.85	165	8.5095%

Blacklist 1	Blacklist 2	Count	Percentage
LI.52	LI.86	1305	0.2200%
LI.52	LI.87	8	0.0013%
LI.52	LI.88	54867	16.3387%
LI.53	LI.54	626	4.7547%
LI.53	LI.55	148	0.6811%
LI.53	LI.56	93525	35.6350%
LI.53	LI.57	512	0.4609%
LI.53	LI.58	166	0.0632%
LI.53	LI.59	2569	16.2287%
LI.53	LI.60	0	0.0000%
LI.53	LI.61	116618	44.4339%
LI.53	LI.62	1195	12.7712%
LI.53	LI.63	176380	67.2044%
LI.53	LI.64	11572	26.6538%
LI.53	LI.65	176093	67.0951%
LI.53	LI.66	8	0.2522%
LI.53	LI.67	12279	36.5937%
LI.53	LI.68	0	0.0000%
LI.53	LI.69	92175	35.1206%
LI.53	LI.70	80597	30.7091%
LI.53	LI.71	17460	6.6526%
LI.53	LI.72	2572	0.9800%
LI.53	LI.73	53787	20.4940%
LI.53	LI.74	356	44.1140%
LI.53	LI.75	4463	15.9177%
LI.53	LI.76	42595	16.2296%
LI.53	LI.77	141887	54.0619%
LI.53	LI.78	323	16.3049%
LI.53	LI.79	45251	19.4978%
LI.53	LI.80	23157	19.4696%
LI.53	LI.81	3624	5.9701%
LI.53	LI.82	74419	28.3552%
LI.53	LI.83	439	1.4481%
LI.53	LI.84	0	0.0000%
LI.53	LI.85	36	1.8566%
LI.53	LI.86	154	0.0587%
LI.53	LI.87	13	0.0050%
LI.53	LI.88	20450	7.7919%
LI.54	LI.55	22	0.1671%

Blacklist 1	Blacklist 2	Count	Percentage
LI.54	LI.56	7736	58.7574%
LI.54	LI.57	56	0.4253%
LI.54	LI.58	261	1.9824%
LI.54	LI.59	225	1.7089%
LI.54	LI.60	0	0.0000%
LI.54	LI.61	1653	12.5551%
LI.54	LI.62	100	1.0687%
LI.54	LI.63	4835	36.7234%
LI.54	LI.64	688	5.2256%
LI.54	LI.65	6503	49.3924%
LI.54	LI.66	8	0.2522%
LI.54	LI.67	771	5.8560%
LI.54	LI.68	0	0.0000%
LI.54	LI.69	8625	65.5096%
LI.54	LI.70	1039	7.8915%
LI.54	LI.71	2943	22.3530%
LI.54	LI.72	764	5.8028%
LI.54	LI.73	1000	7.5953%
LI.54	LI.74	70	8.6741%
LI.54	LI.75	624	4.7395%
LI.54	LI.76	6929	52.6280%
LI.54	LI.77	7119	54.0711%
LI.54	LI.78	5	0.2524%
LI.54	LI.79	3009	22.8543%
LI.54	LI.80	750	5.6965%
LI.54	LI.81	1570	11.9247%
LI.54	LI.82	3098	23.5303%
LI.54	LI.83	2688	20.4162%
LI.54	LI.84	1	0.0514%
LI.54	LI.85	36	1.8566%
LI.54	LI.86	16	0.1215%
LI.54	LI.87	0	0.0000%
LI.54	LI.88	4929	37.4373%
LI.55	LI.56	630	2.8994%
LI.55	LI.57	12191	56.1047%
LI.55	LI.58	17	0.0782%
LI.55	LI.59	52	0.3285%
LI.55	LI.60	0	0.0000%
LI.55	LI.61	618	2.8441%

Blacklist 1	Blacklist 2	Count	Percentage
LI.55	LI.62	40	0.4275%
LI.55	LI.63	795	3.6587%
LI.55	LI.64	76	0.3498%
LI.55	LI.65	1282	5.8999%
LI.55	LI.66	21	0.6620%
LI.55	LI.67	14	0.0644%
LI.55	LI.68	1	0.0094%
LI.55	LI.69	654	3.0098%
LI.55	LI.70	550	2.5312%
LI.55	LI.71	255	1.1735%
LI.55	LI.72	11374	52.3448%
LI.55	LI.73	409	1.8823%
LI.55	LI.74	1	0.1239%
LI.55	LI.75	121	0.5569%
LI.55	LI.76	454	2.0894%
LI.55	LI.77	608	2.7981%
LI.55	LI.78	8	0.4038%
LI.55	LI.79	213	0.9803%
LI.55	LI.80	86	0.3958%
LI.55	LI.81	36	0.1657%
LI.55	LI.82	315	1.4497%
LI.55	LI.83	0	0.0000%
LI.55	LI.84	2	0.1028%
LI.55	LI.85	0	0.0000%
LI.55	LI.86	332	1.5279%
LI.55	LI.87	0	0.0000%
LI.55	LI.88	296	1.3622%
LI.56	LI.57	2088	1.8794%
LI.56	LI.58	3508	0.4812%
LI.56	LI.59	5940	37.5237%
LI.56	LI.60	0	0.0000%
LI.56	LI.61	256091	24.2449%
LI.56	LI.62	928	9.9177%
LI.56	LI.63	497632	47.1123%
LI.56	LI.64	26711	61.5234%
LI.56	LI.65	666465	63.0962%
LI.56	LI.66	242	7.6293%
LI.56	LI.67	22758	67.8230%
LI.56	LI.68	17	0.1605%

Blacklist 1	Blacklist 2	Count	Percentage
LI.56	LI.69	412473	39.0500%
LI.56	LI.70	178563	22.2178%
LI.56	LI.71	138353	23.3743%
LI.56	LI.72	25146	2.3806%
LI.56	LI.73	199089	18.8483%
LI.56	LI.74	411	50.9294%
LI.56	LI.75	11989	42.7598%
LI.56	LI.76	264954	31.0119%
LI.56	LI.77	489737	46.3648%
LI.56	LI.78	848	42.8067%
LI.56	LI.79	127235	54.8233%
LI.56	LI.80	54953	46.2027%
LI.56	LI.81	25881	42.6355%
LI.56	LI.82	181694	43.0972%
LI.56	LI.83	28062	92.5680%
LI.56	LI.84	54	2.7763%
LI.56	LI.85	387	19.9587%
LI.56	LI.86	3636	0.3442%
LI.56	LI.87	24	0.0040%
LI.56	LI.88	139612	41.5746%
LI.57	LI.58	37	0.0333%
LI.57	LI.59	144	0.9097%
LI.57	LI.60	0	0.0000%
LI.57	LI.61	2391	2.1522%
LI.57	LI.62	90	0.9618%
LI.57	LI.63	3227	2.9046%
LI.57	LI.64	185	0.4261%
LI.57	LI.65	4850	4.3655%
LI.57	LI.66	43	1.3556%
LI.57	LI.67	69	0.2056%
LI.57	LI.68	6	0.0566%
LI.57	LI.69	2002	1.8020%
LI.57	LI.70	1919	1.7273%
LI.57	LI.71	864	0.7777%
LI.57	LI.72	46711	42.0449%
LI.57	LI.73	1706	1.5356%
LI.57	LI.74	5	0.6196%
LI.57	LI.75	280	0.9986%
LI.57	LI.76	1412	1.2709%

Blacklist 1	Blacklist 2	Count	Percentage
LI.57	LI.77	1769	1.5923%
LI.57	LI.78	14	0.7067%
LI.57	LI.79	658	0.5923%
LI.57	LI.80	213	0.1917%
LI.57	LI.81	103	0.1697%
LI.57	LI.82	958	0.8623%
LI.57	LI.83	3	0.0099%
LI.57	LI.84	2	0.1028%
LI.57	LI.85	3	0.1547%
LI.57	LI.86	907	0.8164%
LI.57	LI.87	0	0.0000%
LI.57	LI.88	792	0.7129%
LI.58	LI.59	15	0.0948%
LI.58	LI.60	1	0.8065%
LI.58	LI.61	440	0.0604%
LI.58	LI.62	42	0.4489%
LI.58	LI.63	3515	0.4822%
LI.58	LI.64	21	0.0484%
LI.58	LI.65	4545	0.6235%
LI.58	LI.66	4	0.1261%
LI.58	LI.67	683	2.0355%
LI.58	LI.68	1	0.0094%
LI.58	LI.69	3812	0.5229%
LI.58	LI.70	325	0.0446%
LI.58	LI.71	203	0.0343%
LI.58	LI.72	282	0.0387%
LI.58	LI.73	808	0.1108%
LI.58	LI.74	62	7.6828%
LI.58	LI.75	114	0.4066%
LI.58	LI.76	3092	0.4242%
LI.58	LI.77	4642	0.6368%
LI.58	LI.78	4	0.2019%
LI.58	LI.79	1363	0.5873%
LI.58	LI.80	45	0.0378%
LI.58	LI.81	1364	2.2470%
LI.58	LI.82	543	0.1288%
LI.58	LI.83	2126	7.0130%
LI.58	LI.84	0	0.0000%
LI.58	LI.85	4	0.2063%

Blacklist 1	Blacklist 2	Count	Percentage
LI.58	LI.86	13804	1.8936%
LI.58	LI.87	0	0.0000%
LI.58	LI.88	2611	0.7775%
LI.59	LI.60	0	0.0000%
LI.59	LI.61	6923	43.7334%
LI.59	LI.62	247	2.6397%
LI.59	LI.63	10319	65.1864%
LI.59	LI.64	2632	16.6267%
LI.59	LI.65	13441	84.9084%
LI.59	LI.66	3	0.0946%
LI.59	LI.67	684	4.3209%
LI.59	LI.68	0	0.0000%
LI.59	LI.69	6542	41.3266%
LI.59	LI.70	8131	51.3645%
LI.59	LI.71	4981	31.4656%
LI.59	LI.72	402	2.5395%
LI.59	LI.73	9319	58.8692%
LI.59	LI.74	135	16.7286%
LI.59	LI.75	4389	27.7258%
LI.59	LI.76	8583	54.2198%
LI.59	LI.77	7036	44.4473%
LI.59	LI.78	53	2.6754%
LI.59	LI.79	4719	29.8105%
LI.59	LI.80	1672	10.5622%
LI.59	LI.81	280	1.7688%
LI.59	LI.82	5876	37.1194%
LI.59	LI.83	71	0.4485%
LI.59	LI.84	1	0.0514%
LI.59	LI.85	15	0.7736%
LI.59	LI.86	5	0.0316%
LI.59	LI.87	2	0.0126%
LI.59	LI.88	2628	16.6014%
LI.60	LI.61	0	0.0000%
LI.60	LI.62	0	0.0000%
LI.60	LI.63	0	0.0000%
LI.60	LI.64	0	0.0000%
LI.60	LI.65	0	0.0000%
LI.60	LI.66	0	0.0000%
LI.60	LI.67	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI_60	LI_68	7	5.6452%
LI_60	LI_69	0	0.0000%
LI_60	LI_70	0	0.0000%
LI_60	LI_71	0	0.0000%
LI_60	LI_72	0	0.0000%
LI_60	LI_73	0	0.0000%
LI_60	LI_74	0	0.0000%
LI_60	LI_75	0	0.0000%
LI_60	LI_76	1	0.8065%
LI_60	LI_77	0	0.0000%
LI_60	LI_78	0	0.0000%
LI_60	LI_79	0	0.0000%
LI_60	LI_80	0	0.0000%
LI_60	LI_81	0	0.0000%
LI_60	LI_82	0	0.0000%
LI_60	LI_83	0	0.0000%
LI_60	LI_84	0	0.0000%
LI_60	LI_85	0	0.0000%
LI_60	LI_86	0	0.0000%
LI_60	LI_87	0	0.0000%
LI_60	LI_88	9	7.2581%
LI_61	LI_62	844	9.0200%
LI_61	LI_63	722105	57.8379%
LI_61	LI_64	25008	57.6009%
LI_61	LI_65	781791	62.6185%
LI_61	LI_66	42	1.3241%
LI_61	LI_67	18798	56.0215%
LI_61	LI_68	8	0.0755%
LI_61	LI_69	271915	21.7794%
LI_61	LI_70	220040	27.3786%
LI_61	LI_71	69717	11.7785%
LI_61	LI_72	9473	0.7588%
LI_61	LI_73	236872	18.9726%
LI_61	LI_74	487	60.3470%
LI_61	LI_75	12711	45.3349%
LI_61	LI_76	148266	17.3540%
LI_61	LI_77	522634	41.8610%
LI_61	LI_78	825	41.6456%
LI_61	LI_79	90023	38.7893%

Blacklist 1	Blacklist 2	Count	Percentage
LI.61	LI.80	47335	39.7977%
LI.61	LI.81	6754	11.1263%
LI.61	LI.82	168320	39.9250%
LI.61	LI.83	635	2.0947%
LI.61	LI.84	14	0.7198%
LI.61	LI.85	392	20.2166%
LI.61	LI.86	700	0.0561%
LI.61	LI.87	25	0.0042%
LI.61	LI.88	50876	15.1502%
LI.62	LI.63	1485	15.8705%
LI.62	LI.64	370	3.9543%
LI.62	LI.65	1335	14.2674%
LI.62	LI.66	1	0.0315%
LI.62	LI.67	148	1.5817%
LI.62	LI.68	0	0.0000%
LI.62	LI.69	958	10.2383%
LI.62	LI.70	1441	15.4002%
LI.62	LI.71	880	9.4047%
LI.62	LI.72	452	4.8306%
LI.62	LI.73	946	10.1101%
LI.62	LI.74	54	6.6914%
LI.62	LI.75	481	5.1405%
LI.62	LI.76	1269	13.5620%
LI.62	LI.77	1127	12.0445%
LI.62	LI.78	38	1.9182%
LI.62	LI.79	690	7.3742%
LI.62	LI.80	313	3.3451%
LI.62	LI.81	155	1.6565%
LI.62	LI.82	751	8.0261%
LI.62	LI.83	105	1.1222%
LI.62	LI.84	0	0.0000%
LI.62	LI.85	6	0.3094%
LI.62	LI.86	208	2.2229%
LI.62	LI.87	1	0.0107%
LI.62	LI.88	671	7.1711%
LI.63	LI.64	32712	75.3455%
LI.63	LI.65	1974824	35.9423%
LI.63	LI.66	128	4.0353%
LI.63	LI.67	26815	79.9136%

Blacklist 1	Blacklist 2	Count	Percentage
LI.63	LI.68	14	0.1322%
LI.63	LI.69	495821	35.7363%
LI.63	LI.70	400615	49.8468%
LI.63	LI.71	132920	22.4564%
LI.63	LI.72	19782	1.0325%
LI.63	LI.73	508336	36.7785%
LI.63	LI.74	612	75.8364%
LI.63	LI.75	19859	70.8289%
LI.63	LI.76	279641	32.7310%
LI.63	LI.77	1256144	45.5420%
LI.63	LI.78	1056	53.3064%
LI.63	LI.79	154761	66.6838%
LI.63	LI.80	69017	58.0272%
LI.63	LI.81	14998	24.7072%
LI.63	LI.82	270473	64.1553%
LI.63	LI.83	8289	27.3429%
LI.63	LI.84	46	2.3650%
LI.63	LI.85	407	20.9902%
LI.63	LI.86	4409	0.0802%
LI.63	LI.87	34	0.0057%
LI.63	LI.88	97083	28.9100%
LI.64	LI.65	40676	93.6890%
LI.64	LI.66	10	0.3153%
LI.64	LI.67	3191	9.5098%
LI.64	LI.68	1	0.0094%
LI.64	LI.69	29752	68.5277%
LI.64	LI.70	20506	47.2314%
LI.64	LI.71	13832	31.8592%
LI.64	LI.72	1801	4.1482%
LI.64	LI.73	23388	53.8695%
LI.64	LI.74	280	34.6964%
LI.64	LI.75	4835	17.2445%
LI.64	LI.76	28760	66.2429%
LI.64	LI.77	33558	77.2941%
LI.64	LI.78	223	11.2569%
LI.64	LI.79	15529	35.7679%
LI.64	LI.80	7913	18.2260%
LI.64	LI.81	1484	3.4181%
LI.64	LI.82	24365	56.1199%

Blacklist 1	Blacklist 2	Count	Percentage
LI.64	LI.83	66	0.2177%
LI.64	LI.84	3	0.1542%
LI.64	LI.85	97	5.0026%
LI.64	LI.86	175	0.4031%
LI.64	LI.87	7	0.0161%
LI.64	LI.88	11361	26.1678%
LI.65	LI.66	371	11.6961%
LI.65	LI.67	28542	85.0603%
LI.65	LI.68	36	0.3398%
LI.65	LI.69	722835	52.0983%
LI.65	LI.70	528966	65.8169%
LI.65	LI.71	344066	58.1288%
LI.65	LI.72	42258	2.2055%
LI.65	LI.73	673187	48.7055%
LI.65	LI.74	647	80.1735%
LI.65	LI.75	23540	83.9575%
LI.65	LI.76	476320	55.7515%
LI.65	LI.77	1702687	61.7316%
LI.65	LI.78	1404	70.8733%
LI.65	LI.79	175636	75.6784%
LI.65	LI.80	98342	82.6827%
LI.65	LI.81	23868	39.3193%
LI.65	LI.82	323908	76.8299%
LI.65	LI.83	6525	21.5240%
LI.65	LI.84	80	4.1131%
LI.65	LI.85	877	45.2295%
LI.65	LI.86	10635	0.1724%
LI.65	LI.87	41	0.0069%
LI.65	LI.88	171736	51.1407%
LI.66	LI.67	4	0.1261%
LI.66	LI.68	20	0.6305%
LI.66	LI.69	207	6.5259%
LI.66	LI.70	52	1.6393%
LI.66	LI.71	71	2.2383%
LI.66	LI.72	375	11.8222%
LI.66	LI.73	69	2.1753%
LI.66	LI.74	0	0.0000%
LI.66	LI.75	13	0.4098%
LI.66	LI.76	128	4.0353%

Blacklist 1	Blacklist 2	Count	Percentage
LI.66	LI.77	113	3.5624%
LI.66	LI.78	0	0.0000%
LI.66	LI.79	59	1.8600%
LI.66	LI.80	6	0.1892%
LI.66	LI.81	7	0.2207%
LI.66	LI.82	57	1.7970%
LI.66	LI.83	0	0.0000%
LI.66	LI.84	2	0.1028%
LI.66	LI.85	0	0.0000%
LI.66	LI.86	11	0.3468%
LI.66	LI.87	0	0.0000%
LI.66	LI.88	325	10.2459%
LI.67	LI.68	2	0.0189%
LI.67	LI.69	24274	72.3409%
LI.67	LI.70	17129	51.0475%
LI.67	LI.71	4538	13.5241%
LI.67	LI.72	758	2.2590%
LI.67	LI.73	9755	29.0717%
LI.67	LI.74	128	15.8612%
LI.67	LI.75	1183	4.2193%
LI.67	LI.76	11713	34.9069%
LI.67	LI.77	28485	84.8905%
LI.67	LI.78	75	3.7860%
LI.67	LI.79	9682	28.8541%
LI.67	LI.80	6635	19.7735%
LI.67	LI.81	2524	7.5220%
LI.67	LI.82	16571	49.3846%
LI.67	LI.83	3233	10.6647%
LI.67	LI.84	0	0.0000%
LI.67	LI.85	41	2.1145%
LI.67	LI.86	23	0.0685%
LI.67	LI.87	9	0.0268%
LI.67	LI.88	8356	24.9024%
LI.68	LI.69	10	0.0944%
LI.68	LI.70	3	0.0283%
LI.68	LI.71	27	0.2549%
LI.68	LI.72	42	0.3965%
LI.68	LI.73	10	0.0944%
LI.68	LI.74	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI_68	LI_75	1	0.0094%
LI_68	LI_76	9	0.0850%
LI_68	LI_77	11	0.1038%
LI_68	LI_78	0	0.0000%
LI_68	LI_79	5	0.0472%
LI_68	LI_80	0	0.0000%
LI_68	LI_81	0	0.0000%
LI_68	LI_82	2	0.0189%
LI_68	LI_83	0	0.0000%
LI_68	LI_84	3	0.1542%
LI_68	LI_85	0	0.0000%
LI_68	LI_86	56	0.5287%
LI_68	LI_87	3	0.0283%
LI_68	LI_88	104	0.9818%
LI_69	LI_70	186950	23.2614%
LI_69	LI_71	195577	33.0421%
LI_69	LI_72	26173	1.8864%
LI_69	LI_73	167675	12.1314%
LI_69	LI_74	630	78.0669%
LI_69	LI_75	12521	44.6573%
LI_69	LI_76	311490	36.4588%
LI_69	LI_77	593626	42.7856%
LI_69	LI_78	679	34.2756%
LI_69	LI_79	104284	44.9341%
LI_69	LI_80	70998	59.6928%
LI_69	LI_81	28105	46.2992%
LI_69	LI_82	164826	39.0962%
LI_69	LI_83	29841	98.4364%
LI_69	LI_84	46	2.3650%
LI_69	LI_85	1191	61.4234%
LI_69	LI_86	3119	0.2248%
LI_69	LI_87	30	0.0050%
LI_69	LI_88	162766	48.4695%
LI_70	LI_71	60147	10.1616%
LI_70	LI_72	7215	0.8977%
LI_70	LI_73	209647	26.0855%
LI_70	LI_74	297	36.8030%
LI_70	LI_75	11441	40.8053%
LI_70	LI_76	126587	15.7507%

Blacklist 1	Blacklist 2	Count	Percentage
LI.70	LI.77	334436	41.6124%
LI.70	LI.78	716	36.1434%
LI.70	LI.79	66454	28.6338%
LI.70	LI.80	36450	30.6460%
LI.70	LI.81	4544	7.4856%
LI.70	LI.82	117439	27.8561%
LI.70	LI.83	148	0.4882%
LI.70	LI.84	9	0.4627%
LI.70	LI.85	60	3.0944%
LI.70	LI.86	415	0.0516%
LI.70	LI.87	23	0.0039%
LI.70	LI.88	36040	10.7322%
LI.71	LI.72	21683	3.6633%
LI.71	LI.73	65901	11.1337%
LI.71	LI.74	425	52.6642%
LI.71	LI.75	6645	23.7000%
LI.71	LI.76	192012	32.4398%
LI.71	LI.77	222379	37.5702%
LI.71	LI.78	316	15.9515%
LI.71	LI.79	34754	14.9749%
LI.71	LI.80	38021	31.9668%
LI.71	LI.81	11148	18.3648%
LI.71	LI.82	57262	13.5824%
LI.71	LI.83	354	1.1677%
LI.71	LI.84	34	1.7481%
LI.71	LI.85	166	8.5611%
LI.71	LI.86	10475	1.7697%
LI.71	LI.87	5	0.0008%
LI.71	LI.88	85494	25.4590%
LI.72	LI.73	7639	0.5527%
LI.72	LI.74	75	9.2937%
LI.72	LI.75	1028	3.6665%
LI.72	LI.76	17388	2.0352%
LI.72	LI.77	23598	1.2316%
LI.72	LI.78	34	1.7163%
LI.72	LI.79	4981	2.1462%
LI.72	LI.80	3653	3.0713%
LI.72	LI.81	1953	3.2173%
LI.72	LI.82	8415	1.9960%

Blacklist 1	Blacklist 2	Count	Percentage
LI.72	LI.83	67	0.2210%
LI.72	LI.84	72	3.7018%
LI.72	LI.85	60	3.0944%
LI.72	LI.86	7982	0.4166%
LI.72	LI.87	2	0.0003%
LI.72	LI.88	10953	3.2617%
LI.73	LI.74	326	40.3965%
LI.73	LI.75	14241	50.7918%
LI.73	LI.76	166621	19.5024%
LI.73	LI.77	349921	25.3170%
LI.73	LI.78	776	39.1721%
LI.73	LI.79	57760	24.8878%
LI.73	LI.80	26825	22.5536%
LI.73	LI.81	3603	5.9355%
LI.73	LI.82	107117	25.4078%
LI.73	LI.83	544	1.7945%
LI.73	LI.84	14	0.7198%
LI.73	LI.85	96	4.9510%
LI.73	LI.86	805	0.0582%
LI.73	LI.87	25	0.0042%
LI.73	LI.88	38911	11.5872%
LI.74	LI.75	280	34.6964%
LI.74	LI.76	659	81.6605%
LI.74	LI.77	625	77.4473%
LI.74	LI.78	6	0.7435%
LI.74	LI.79	393	48.6989%
LI.74	LI.80	206	25.5266%
LI.74	LI.81	94	11.6481%
LI.74	LI.82	551	68.2776%
LI.74	LI.83	111	13.7546%
LI.74	LI.84	0	0.0000%
LI.74	LI.85	8	0.9913%
LI.74	LI.86	2	0.2478%
LI.74	LI.87	0	0.0000%
LI.74	LI.88	392	48.5750%
LI.75	LI.76	16036	57.1938%
LI.75	LI.77	13858	49.4258%
LI.75	LI.78	248	12.5189%
LI.75	LI.79	8478	30.2375%

Blacklist 1	Blacklist 2	Count	Percentage
LI.75	LI.80	2660	9.4871%
LI.75	LI.81	835	2.9781%
LI.75	LI.82	11623	41.4545%
LI.75	LI.83	527	1.8796%
LI.75	LI.84	3	0.1542%
LI.75	LI.85	68	3.5070%
LI.75	LI.86	98	0.3495%
LI.75	LI.87	2	0.0071%
LI.75	LI.88	5682	20.2654%
LI.76	LI.77	341706	39.9955%
LI.76	LI.78	839	42.3523%
LI.76	LI.79	70305	30.2932%
LI.76	LI.80	39004	32.7933%
LI.76	LI.81	14353	23.6446%
LI.76	LI.82	111710	26.4972%
LI.76	LI.83	22469	74.1184%
LI.76	LI.84	23	1.1825%
LI.76	LI.85	439	22.6405%
LI.76	LI.86	2504	0.2931%
LI.76	LI.87	25	0.0042%
LI.76	LI.88	124562	37.0929%
LI.77	LI.78	837	42.2514%
LI.77	LI.79	126464	54.4911%
LI.77	LI.80	89398	75.1629%
LI.77	LI.81	28231	46.5068%
LI.77	LI.82	233255	55.3273%
LI.77	LI.83	20024	66.0531%
LI.77	LI.84	33	1.6967%
LI.77	LI.85	429	22.1248%
LI.77	LI.86	2223	0.0806%
LI.77	LI.87	31	0.0052%
LI.77	LI.88	165580	49.3075%
LI.78	LI.79	513	25.8960%
LI.78	LI.80	185	9.3387%
LI.78	LI.81	73	3.6850%
LI.78	LI.82	741	37.4054%
LI.78	LI.83	2	0.1010%
LI.78	LI.84	0	0.0000%
LI.78	LI.85	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI_78	LI.86	2	0.1010%
LI_78	LI.87	0	0.0000%
LI_78	LI.88	408	20.5957%
LI_79	LI.80	19260	16.1932%
LI_79	LI.81	7343	12.0966%
LI_79	LI.82	84688	36.4906%
LI_79	LI.83	6106	20.1418%
LI_79	LI.84	20	1.0283%
LI_79	LI.85	271	13.9763%
LI_79	LI.86	727	0.3133%
LI_79	LI.87	8	0.0034%
LI_79	LI.88	36881	15.8914%
LI_80	LI.81	5655	9.3158%
LI_80	LI.82	33856	28.4650%
LI_80	LI.83	139	0.4585%
LI_80	LI.84	6	0.3085%
LI_80	LI.85	57	2.9397%
LI_80	LI.86	89	0.0748%
LI_80	LI.87	8	0.0067%
LI_80	LI.88	24913	20.9460%
LI_81	LI.82	9122	15.0273%
LI_81	LI.83	6502	21.4481%
LI_81	LI.84	2	0.1028%
LI_81	LI.85	58	2.9912%
LI_81	LI.86	96	0.1581%
LI_81	LI.87	3	0.0049%
LI_81	LI.88	18853	31.0578%
LI_82	LI.83	3732	12.3107%
LI_82	LI.84	25	1.2853%
LI_82	LI.85	302	15.5750%
LI_82	LI.86	444	0.1053%
LI_82	LI.87	12	0.0028%
LI_82	LI.88	52030	15.4938%
LI_83	LI.84	0	0.0000%
LI_83	LI.85	44	2.2692%
LI_83	LI.86	0	0.0000%
LI_83	LI.87	0	0.0000%
LI_83	LI.88	18737	61.8077%
LI_84	LI.85	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LI.84	LI.86	10	0.5141%
LI.84	LI.87	0	0.0000%
LI.84	LI.88	17	0.8740%
LI.85	LI.86	0	0.0000%
LI.85	LI.87	0	0.0000%
LI.85	LI.88	187	9.6441%
LI.86	LI.87	0	0.0000%
LI.86	LI.88	937	0.2790%
LI.87	LI.88	12	0.0036%

Table 1: Pairwise Intersection of IP Blacklists

Appendix B

Blacklist 1	Blacklist 2	Count	Percentage
LD.01	LD.02	18921	4.4692%
LD.01	LD.03	16	0.2089%
LD.01	LD.04	28	0.0521%
LD.01	LD.05	1199	2.6177%
LD.01	LD.06	4	0.1330%
LD.01	LD.07	15133	3.5745%
LD.01	LD.08	145	0.3569%
LD.01	LD.09	285	0.3738%
LD.01	LD.10	0	0.0000%
LD.01	LD.11	0	0.0000%
LD.01	LD.12	708	1.7620%
LD.01	LD.13	73	0.0172%
LD.01	LD.14	15989	3.7767%
LD.01	LD.15	0	0.0000%
LD.01	LD.16	2468	4.9157%
LD.01	LD.17	5	0.2563%
LD.01	LD.18	269	0.0689%
LD.01	LD.19	0	0.0000%
LD.01	LD.20	10743	2.5375%
LD.01	LD.21	59	0.1835%
LD.01	LD.22	461	0.1089%
LD.01	LD.23	1471	4.8903%
LD.01	LD.24	8966	2.1178%

Blacklist 1	Blacklist 2	Count	Percentage
LD_01	LD_25	2389	0.5643%
LD_01	LD_26	17656	4.1704%
LD_01	LD_27	12841	3.0331%
LD_01	LD_28	5	0.2580%
LD_01	LD_29	90	2.0234%
LD_01	LD_30	0	0.0000%
LD_01	LD_31	3	0.1658%
LD_01	LD_32	365	0.2575%
LD_01	LD_33	1	0.0186%
LD_01	LD_34	410	5.1462%
LD_01	LD_35	0	0.0000%
LD_02	LD_03	1332	17.3936%
LD_02	LD_04	1053	1.9582%
LD_02	LD_05	35217	76.8863%
LD_02	LD_06	133	4.4215%
LD_02	LD_07	1832558	25.6987%
LD_02	LD_08	33022	81.2709%
LD_02	LD_09	5916	7.7596%
LD_02	LD_10	0	0.0000%
LD_02	LD_11	0	0.0000%
LD_02	LD_12	16446	40.9298%
LD_02	LD_13	6674	0.0936%
LD_02	LD_14	460452	63.4342%
LD_02	LD_15	1	0.0000%
LD_02	LD_16	40343	80.3549%
LD_02	LD_17	160	8.2009%
LD_02	LD_18	12455	3.1893%
LD_02	LD_19	4	0.1929%
LD_02	LD_20	1202354	52.4114%
LD_02	LD_21	16459	51.1817%
LD_02	LD_22	61734	0.8657%
LD_02	LD_23	29075	96.6589%
LD_02	LD_24	489070	51.7184%
LD_02	LD_25	108712	19.4048%
LD_02	LD_26	365091	5.9373%
LD_02	LD_27	355236	67.9095%
LD_02	LD_28	166	8.5655%
LD_02	LD_29	2945	66.2095%
LD_02	LD_30	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LD_02	LD_31	331	18.2974%
LD_02	LD_32	10433	7.3610%
LD_02	LD_33	47	0.8741%
LD_02	LD_34	7849	98.5189%
LD_02	LD_35	2	0.5831%
LD_03	LD_04	0	0.0000%
LD_03	LD_05	0	0.0000%
LD_03	LD_06	0	0.0000%
LD_03	LD_07	1774	23.1653%
LD_03	LD_08	71	0.9271%
LD_03	LD_09	10	0.1306%
LD_03	LD_10	0	0.0000%
LD_03	LD_11	0	0.0000%
LD_03	LD_12	0	0.0000%
LD_03	LD_13	5	0.0653%
LD_03	LD_14	38	0.4962%
LD_03	LD_15	0	0.0000%
LD_03	LD_16	0	0.0000%
LD_03	LD_17	0	0.0000%
LD_03	LD_18	3	0.0392%
LD_03	LD_19	0	0.0000%
LD_03	LD_20	374	4.8838%
LD_03	LD_21	35	0.4570%
LD_03	LD_22	598	7.8088%
LD_03	LD_23	3	0.0392%
LD_03	LD_24	1066	13.9201%
LD_03	LD_25	3	0.0392%
LD_03	LD_26	118	1.5409%
LD_03	LD_27	19	0.2481%
LD_03	LD_28	0	0.0000%
LD_03	LD_29	42	0.9442%
LD_03	LD_30	0	0.0000%
LD_03	LD_31	0	0.0000%
LD_03	LD_32	4	0.0522%
LD_03	LD_33	1	0.0186%
LD_03	LD_34	42	0.5484%
LD_03	LD_35	0	0.0000%
LD_04	LD_05	6	0.0131%
LD_04	LD_06	26	0.8644%

Blacklist 1	Blacklist 2	Count	Percentage
LD_04	LD_07	692	1.2869%
LD_04	LD_08	12	0.0295%
LD_04	LD_09	1227	2.2818%
LD_04	LD_10	0	0.0000%
LD_04	LD_11	0	0.0000%
LD_04	LD_12	9	0.0224%
LD_04	LD_13	73	0.1358%
LD_04	LD_14	219	0.4073%
LD_04	LD_15	0	0.0000%
LD_04	LD_16	54	0.1076%
LD_04	LD_17	92	4.7155%
LD_04	LD_18	168	0.3124%
LD_04	LD_19	0	0.0000%
LD_04	LD_20	463	0.8610%
LD_04	LD_21	26	0.0809%
LD_04	LD_22	116	0.2157%
LD_04	LD_23	37	0.1230%
LD_04	LD_24	105	0.1953%
LD_04	LD_25	34	0.0632%
LD_04	LD_26	1027	1.9099%
LD_04	LD_27	219	0.4073%
LD_04	LD_28	103	5.3148%
LD_04	LD_29	38	0.8543%
LD_04	LD_30	0	0.0000%
LD_04	LD_31	11	0.6081%
LD_04	LD_32	133	0.2473%
LD_04	LD_33	0	0.0000%
LD_04	LD_34	21	0.2636%
LD_04	LD_35	0	0.0000%
LD_05	LD_06	1	0.0332%
LD_05	LD_07	29699	64.8393%
LD_05	LD_08	177	0.4356%
LD_05	LD_09	232	0.5065%
LD_05	LD_10	0	0.0000%
LD_05	LD_11	0	0.0000%
LD_05	LD_12	1240	3.0860%
LD_05	LD_13	115	0.2511%
LD_05	LD_14	22840	49.8646%
LD_05	LD_15	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LD_05	LD_16	11817	25.7991%
LD_05	LD_17	0	0.0000%
LD_05	LD_18	179	0.3908%
LD_05	LD_19	0	0.0000%
LD_05	LD_20	23194	50.6375%
LD_05	LD_21	61	0.1897%
LD_05	LD_22	223	0.4869%
LD_05	LD_23	2705	8.9927%
LD_05	LD_24	13412	29.2813%
LD_05	LD_25	6143	13.4115%
LD_05	LD_26	14544	31.7527%
LD_05	LD_27	16139	35.2349%
LD_05	LD_28	3	0.1548%
LD_05	LD_29	2	0.0450%
LD_05	LD_30	0	0.0000%
LD_05	LD_31	1	0.0553%
LD_05	LD_32	105	0.2292%
LD_05	LD_33	0	0.0000%
LD_05	LD_34	90	1.1297%
LD_05	LD_35	0	0.0000%
LD_06	LD_07	56	1.8617%
LD_06	LD_08	0	0.0000%
LD_06	LD_09	625	20.7779%
LD_06	LD_10	0	0.0000%
LD_06	LD_11	0	0.0000%
LD_06	LD_12	0	0.0000%
LD_06	LD_13	1943	64.5944%
LD_06	LD_14	389	12.9322%
LD_06	LD_15	0	0.0000%
LD_06	LD_16	1	0.0332%
LD_06	LD_17	6	0.3075%
LD_06	LD_18	34	1.1303%
LD_06	LD_19	0	0.0000%
LD_06	LD_20	36	1.1968%
LD_06	LD_21	0	0.0000%
LD_06	LD_22	134	4.4548%
LD_06	LD_23	2	0.0665%
LD_06	LD_24	5	0.1662%
LD_06	LD_25	2	0.0665%

Blacklist 1	Blacklist 2	Count	Percentage
LD_06	LD_26	1968	65.4255%
LD_06	LD_27	48	1.5957%
LD_06	LD_28	5	0.2580%
LD_06	LD_29	1	0.0332%
LD_06	LD_30	0	0.0000%
LD_06	LD_31	0	0.0000%
LD_06	LD_32	142	4.7207%
LD_06	LD_33	1	0.0332%
LD_06	LD_34	0	0.0000%
LD_06	LD_35	0	0.0000%
LD_07	LD_08	34253	84.3006%
LD_07	LD_09	5049	6.6224%
LD_07	LD_10	0	0.0000%
LD_07	LD_11	0	0.0000%
LD_07	LD_12	13708	34.1156%
LD_07	LD_13	3204	0.0110%
LD_07	LD_14	323002	44.4984%
LD_07	LD_15	1	0.0000%
LD_07	LD_16	37225	74.1445%
LD_07	LD_17	104	5.3306%
LD_07	LD_18	8287	2.1220%
LD_07	LD_19	1	0.0482%
LD_07	LD_20	1184632	51.6389%
LD_07	LD_21	16318	50.7432%
LD_07	LD_22	71763	0.4060%
LD_07	LD_23	28423	94.4914%
LD_07	LD_24	490066	51.8237%
LD_07	LD_25	72556	12.9510%
LD_07	LD_26	280045	4.5542%
LD_07	LD_27	212203	40.5663%
LD_07	LD_28	107	5.5212%
LD_07	LD_29	1899	42.6933%
LD_07	LD_30	0	0.0000%
LD_07	LD_31	62	3.4273%
LD_07	LD_32	5430	3.8311%
LD_07	LD_33	32	0.5951%
LD_07	LD_34	7339	92.1175%
LD_07	LD_35	0	0.0000%
LD_08	LD_09	61	0.1501%

Blacklist 1	Blacklist 2	Count	Percentage
LD_08	LD_10	0	0.0000%
LD_08	LD_11	0	0.0000%
LD_08	LD_12	439	1.0926%
LD_08	LD_13	19	0.0468%
LD_08	LD_14	1497	3.6843%
LD_08	LD_15	0	0.0000%
LD_08	LD_16	395	0.9721%
LD_08	LD_17	1	0.0513%
LD_08	LD_18	371	0.9131%
LD_08	LD_19	1	0.0482%
LD_08	LD_20	33887	83.3998%
LD_08	LD_21	4165	12.9517%
LD_08	LD_22	242	0.5956%
LD_08	LD_23	548	1.8218%
LD_08	LD_24	10943	26.9320%
LD_08	LD_25	300	0.7383%
LD_08	LD_26	1539	3.7877%
LD_08	LD_27	1263	3.1084%
LD_08	LD_28	1	0.0516%
LD_08	LD_29	196	4.4065%
LD_08	LD_30	0	0.0000%
LD_08	LD_31	12	0.6633%
LD_08	LD_32	98	0.2412%
LD_08	LD_33	0	0.0000%
LD_08	LD_34	1396	17.5223%
LD_08	LD_35	0	0.0000%
LD_09	LD_10	0	0.0000%
LD_09	LD_11	0	0.0000%
LD_09	LD_12	55	0.1369%
LD_09	LD_13	14937	19.5918%
LD_09	LD_14	7570	9.9290%
LD_09	LD_15	0	0.0000%
LD_09	LD_16	393	0.7828%
LD_09	LD_17	579	29.6771%
LD_09	LD_18	2975	3.9021%
LD_09	LD_19	0	0.0000%
LD_09	LD_20	2869	3.7631%
LD_09	LD_21	183	0.5691%
LD_09	LD_22	2387	3.1309%

Blacklist 1	Blacklist 2	Count	Percentage
LD_09	LD_23	302	1.0040%
LD_09	LD_24	1787	2.3439%
LD_09	LD_25	295	0.3869%
LD_09	LD_26	51348	67.3496%
LD_09	LD_27	4442	5.8263%
LD_09	LD_28	617	31.8369%
LD_09	LD_29	162	3.6421%
LD_09	LD_30	0	0.0000%
LD_09	LD_31	2	0.1106%
LD_09	LD_32	2494	3.2712%
LD_09	LD_33	2	0.0372%
LD_09	LD_34	61	0.7657%
LD_09	LD_35	0	0.0000%
LD_10	LD_11	0	0.0000%
LD_10	LD_12	0	0.0000%
LD_10	LD_13	0	0.0000%
LD_10	LD_14	0	0.0000%
LD_10	LD_15	0	0.0000%
LD_10	LD_16	0	0.0000%
LD_10	LD_17	0	0.0000%
LD_10	LD_18	0	0.0000%
LD_10	LD_19	0	0.0000%
LD_10	LD_20	0	0.0000%
LD_10	LD_21	0	0.0000%
LD_10	LD_22	0	0.0000%
LD_10	LD_23	0	0.0000%
LD_10	LD_24	0	0.0000%
LD_10	LD_25	0	0.0000%
LD_10	LD_26	0	0.0000%
LD_10	LD_27	0	0.0000%
LD_10	LD_28	0	0.0000%
LD_10	LD_29	0	0.0000%
LD_10	LD_30	0	0.0000%
LD_10	LD_31	0	0.0000%
LD_10	LD_32	0	0.0000%
LD_10	LD_33	0	0.0000%
LD_10	LD_34	0	0.0000%
LD_10	LD_35	0	0.0000%
LD_11	LD_12	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LD_11	LD_13	0	0.0000%
LD_11	LD_14	0	0.0000%
LD_11	LD_15	0	0.0000%
LD_11	LD_16	0	0.0000%
LD_11	LD_17	0	0.0000%
LD_11	LD_18	0	0.0000%
LD_11	LD_19	0	0.0000%
LD_11	LD_20	0	0.0000%
LD_11	LD_21	0	0.0000%
LD_11	LD_22	0	0.0000%
LD_11	LD_23	0	0.0000%
LD_11	LD_24	0	0.0000%
LD_11	LD_25	0	0.0000%
LD_11	LD_26	0	0.0000%
LD_11	LD_27	0	0.0000%
LD_11	LD_28	0	0.0000%
LD_11	LD_29	0	0.0000%
LD_11	LD_30	492	100.0000%
LD_11	LD_31	0	0.0000%
LD_11	LD_32	0	0.0000%
LD_11	LD_33	0	0.0000%
LD_11	LD_34	0	0.0000%
LD_11	LD_35	0	0.0000%
LD_12	LD_13	8	0.0199%
LD_12	LD_14	10671	26.5573%
LD_12	LD_15	0	0.0000%
LD_12	LD_16	1280	3.1856%
LD_12	LD_17	5	0.2563%
LD_12	LD_18	182	0.4530%
LD_12	LD_19	0	0.0000%
LD_12	LD_20	11951	29.7429%
LD_12	LD_21	157	0.4882%
LD_12	LD_22	288	0.7168%
LD_12	LD_23	2710	9.0093%
LD_12	LD_24	7638	19.0090%
LD_12	LD_25	5002	12.4487%
LD_12	LD_26	7814	19.4470%
LD_12	LD_27	8773	21.8337%
LD_12	LD_28	5	0.2580%

Blacklist 1	Blacklist 2	Count	Percentage
LD_12	LD_29	67	1.5063%
LD_12	LD_30	0	0.0000%
LD_12	LD_31	2	0.1106%
LD_12	LD_32	106	0.2638%
LD_12	LD_33	0	0.0000%
LD_12	LD_34	232	2.9120%
LD_12	LD_35	0	0.0000%
LD_13	LD_14	7516	1.0354%
LD_13	LD_15	0	0.0000%
LD_13	LD_16	75	0.1494%
LD_13	LD_17	96	4.9206%
LD_13	LD_18	687	0.1759%
LD_13	LD_19	0	0.0000%
LD_13	LD_20	1365	0.0595%
LD_13	LD_21	47	0.1462%
LD_13	LD_22	26622	0.1506%
LD_13	LD_23	28	0.0931%
LD_13	LD_24	836	0.0884%
LD_13	LD_25	39	0.0070%
LD_13	LD_26	2523428	41.0372%
LD_13	LD_27	1222	0.2336%
LD_13	LD_28	107	5.5212%
LD_13	LD_29	5	0.1124%
LD_13	LD_30	0	0.0000%
LD_13	LD_31	1	0.0553%
LD_13	LD_32	1639	1.1564%
LD_13	LD_33	5	0.0930%
LD_13	LD_34	19	0.2385%
LD_13	LD_35	0	0.0000%
LD_14	LD_15	0	0.0000%
LD_14	LD_16	30184	60.1203%
LD_14	LD_17	23	1.1789%
LD_14	LD_18	1528	0.3913%
LD_14	LD_19	0	0.0000%
LD_14	LD_20	243212	33.5061%
LD_14	LD_21	411	1.2781%
LD_14	LD_22	6628	0.9131%
LD_14	LD_23	23747	78.9461%
LD_14	LD_24	164661	22.6845%

Blacklist 1	Blacklist 2	Count	Percentage
LD_14	LD_25	67967	12.1319%
LD_14	LD_26	354150	48.7895%
LD_14	LD_27	247543	47.3221%
LD_14	LD_28	28	1.4448%
LD_14	LD_29	529	11.8930%
LD_14	LD_30	0	0.0000%
LD_14	LD_31	3	0.1658%
LD_14	LD_32	1397	0.9857%
LD_14	LD_33	2	0.0372%
LD_14	LD_34	1326	16.6437%
LD_14	LD_35	0	0.0000%
LD_15	LD_16	0	0.0000%
LD_15	LD_17	0	0.0000%
LD_15	LD_18	0	0.0000%
LD_15	LD_19	0	0.0000%
LD_15	LD_20	0	0.0000%
LD_15	LD_21	0	0.0000%
LD_15	LD_22	0	0.0000%
LD_15	LD_23	0	0.0000%
LD_15	LD_24	0	0.0000%
LD_15	LD_25	0	0.0000%
LD_15	LD_26	0	0.0000%
LD_15	LD_27	0	0.0000%
LD_15	LD_28	0	0.0000%
LD_15	LD_29	0	0.0000%
LD_15	LD_30	0	0.0000%
LD_15	LD_31	0	0.0000%
LD_15	LD_32	0	0.0000%
LD_15	LD_33	0	0.0000%
LD_15	LD_34	0	0.0000%
LD_15	LD_35	0	0.0000%
LD_16	LD_17	24	1.2301%
LD_16	LD_18	177	0.3525%
LD_16	LD_19	0	0.0000%
LD_16	LD_20	21833	43.4868%
LD_16	LD_21	155	0.4820%
LD_16	LD_22	174	0.3466%
LD_16	LD_23	4388	14.5878%
LD_16	LD_24	24633	49.0639%

Blacklist 1	Blacklist 2	Count	Percentage
LD_16	LD_25	10391	20.6967%
LD_16	LD_26	17311	34.4799%
LD_16	LD_27	20965	41.7580%
LD_16	LD_28	26	1.3416%
LD_16	LD_29	194	4.3615%
LD_16	LD_30	0	0.0000%
LD_16	LD_31	7	0.3870%
LD_16	LD_32	124	0.2470%
LD_16	LD_33	0	0.0000%
LD_16	LD_34	426	5.3471%
LD_16	LD_35	0	0.0000%
LD_17	LD_18	10	0.5126%
LD_17	LD_19	0	0.0000%
LD_17	LD_20	83	4.2542%
LD_17	LD_21	1	0.0513%
LD_17	LD_22	40	2.0502%
LD_17	LD_23	10	0.5126%
LD_17	LD_24	7	0.3588%
LD_17	LD_25	3	0.1538%
LD_17	LD_26	815	41.7734%
LD_17	LD_27	108	5.5356%
LD_17	LD_28	1774	91.5377%
LD_17	LD_29	33	1.6914%
LD_17	LD_30	0	0.0000%
LD_17	LD_31	0	0.0000%
LD_17	LD_32	20	1.0251%
LD_17	LD_33	0	0.0000%
LD_17	LD_34	0	0.0000%
LD_17	LD_35	0	0.0000%
LD_18	LD_19	0	0.0000%
LD_18	LD_20	7263	1.8598%
LD_18	LD_21	634	1.9715%
LD_18	LD_22	906	0.2320%
LD_18	LD_23	212	0.7048%
LD_18	LD_24	1055	0.2701%
LD_18	LD_25	604	0.1547%
LD_18	LD_26	19675	5.0380%
LD_18	LD_27	2855	0.7311%
LD_18	LD_28	12	0.6192%

Blacklist 1	Blacklist 2	Count	Percentage
LD_18	LD_29	94	2.1133%
LD_18	LD_30	0	0.0000%
LD_18	LD_31	75	4.1459%
LD_18	LD_32	21019	14.8300%
LD_18	LD_33	36	0.6695%
LD_18	LD_34	197	2.4727%
LD_18	LD_35	0	0.0000%
LD_19	LD_20	2	0.0964%
LD_19	LD_21	0	0.0000%
LD_19	LD_22	0	0.0000%
LD_19	LD_23	0	0.0000%
LD_19	LD_24	2	0.0964%
LD_19	LD_25	0	0.0000%
LD_19	LD_26	0	0.0000%
LD_19	LD_27	0	0.0000%
LD_19	LD_28	0	0.0000%
LD_19	LD_29	0	0.0000%
LD_19	LD_30	0	0.0000%
LD_19	LD_31	0	0.0000%
LD_19	LD_32	0	0.0000%
LD_19	LD_33	0	0.0000%
LD_19	LD_34	0	0.0000%
LD_19	LD_35	0	0.0000%
LD_20	LD_21	16056	49.9285%
LD_20	LD_22	16995	0.7408%
LD_20	LD_23	20497	68.1416%
LD_20	LD_24	196942	20.8263%
LD_20	LD_25	39884	7.1192%
LD_20	LD_26	241794	10.5400%
LD_20	LD_27	174940	33.4428%
LD_20	LD_28	86	4.4376%
LD_20	LD_29	1515	34.0603%
LD_20	LD_30	0	0.0000%
LD_20	LD_31	47	2.5981%
LD_20	LD_32	5064	3.5729%
LD_20	LD_33	2	0.0372%
LD_20	LD_34	5430	68.1561%
LD_20	LD_35	0	0.0000%
LD_21	LD_22	238	0.7401%

Blacklist 1	Blacklist 2	Count	Percentage
LD_21	LD_23	173	0.5751%
LD_21	LD_24	4934	15.3430%
LD_21	LD_25	73	0.2270%
LD_21	LD_26	697	2.1674%
LD_21	LD_27	275	0.8552%
LD_21	LD_28	1	0.0516%
LD_21	LD_29	111	2.4955%
LD_21	LD_30	0	0.0000%
LD_21	LD_31	73	4.0354%
LD_21	LD_32	57	0.1772%
LD_21	LD_33	0	0.0000%
LD_21	LD_34	862	10.8196%
LD_21	LD_35	0	0.0000%
LD_22	LD_23	268	0.8910%
LD_22	LD_24	13313	1.4078%
LD_22	LD_25	1205	0.2151%
LD_22	LD_26	33883	0.5510%
LD_22	LD_27	4265	0.8153%
LD_22	LD_28	39	2.0124%
LD_22	LD_29	73	1.6412%
LD_22	LD_30	0	0.0000%
LD_22	LD_31	6	0.3317%
LD_22	LD_32	1150	0.8114%
LD_22	LD_33	9	0.1674%
LD_22	LD_34	184	2.3095%
LD_22	LD_35	0	0.0000%
LD_23	LD_24	15611	51.8983%
LD_23	LD_25	7113	23.6469%
LD_23	LD_26	17835	59.2919%
LD_23	LD_27	16566	55.0731%
LD_23	LD_28	10	0.5160%
LD_23	LD_29	106	2.3831%
LD_23	LD_30	0	0.0000%
LD_23	LD_31	2	0.1106%
LD_23	LD_32	135	0.4488%
LD_23	LD_33	0	0.0000%
LD_23	LD_34	439	5.5102%
LD_23	LD_35	0	0.0000%
LD_24	LD_25	51329	9.1621%

Blacklist 1	Blacklist 2	Count	Percentage
LD_24	LD_26	96861	10.2429%
LD_24	LD_27	99949	19.1070%
LD_24	LD_28	7	0.3612%
LD_24	LD_29	715	16.0746%
LD_24	LD_30	0	0.0000%
LD_24	LD_31	20	1.1056%
LD_24	LD_32	621	0.4381%
LD_24	LD_33	102	1.8970%
LD_24	LD_34	3448	43.2785%
LD_24	LD_35	0	0.0000%
LD_25	LD_26	31824	5.6805%
LD_25	LD_27	56584	10.8170%
LD_25	LD_28	4	0.2064%
LD_25	LD_29	98	2.2032%
LD_25	LD_30	0	0.0000%
LD_25	LD_31	3	0.1658%
LD_25	LD_32	257	0.1813%
LD_25	LD_33	1	0.0186%
LD_25	LD_34	223	2.7990%
LD_25	LD_35	0	0.0000%
LD_26	LD_27	261510	49.9922%
LD_26	LD_28	818	42.2085%
LD_26	LD_29	1096	24.6403%
LD_26	LD_30	0	0.0000%
LD_26	LD_31	7	0.3870%
LD_26	LD_32	52742	37.2122%
LD_26	LD_33	6	0.1116%
LD_26	LD_34	1256	15.7650%
LD_26	LD_35	0	0.0000%
LD_27	LD_28	114	5.8824%
LD_27	LD_29	755	16.9739%
LD_27	LD_30	0	0.0000%
LD_27	LD_31	5	0.2764%
LD_27	LD_32	3712	2.6190%
LD_27	LD_33	2	0.0372%
LD_27	LD_34	1370	17.1959%
LD_27	LD_35	0	0.0000%
LD_28	LD_29	33	1.7028%
LD_28	LD_30	0	0.0000%

Blacklist 1	Blacklist 2	Count	Percentage
LD_28	LD_31	0	0.0000%
LD_28	LD_32	20	1.0320%
LD_28	LD_33	0	0.0000%
LD_28	LD_34	0	0.0000%
LD_28	LD_35	0	0.0000%
LD_29	LD_30	0	0.0000%
LD_29	LD_31	7	0.3870%
LD_29	LD_32	75	1.6862%
LD_29	LD_33	0	0.0000%
LD_29	LD_34	67	1.5063%
LD_29	LD_35	0	0.0000%
LD_30	LD_31	0	0.0000%
LD_30	LD_32	0	0.0000%
LD_30	LD_33	0	0.0000%
LD_30	LD_34	0	0.0000%
LD_30	LD_35	0	0.0000%
LD_31	LD_32	8	0.4422%
LD_31	LD_33	0	0.0000%
LD_31	LD_34	1	0.0553%
LD_31	LD_35	0	0.0000%
LD_32	LD_33	40	0.7439%
LD_32	LD_34	55	0.6903%
LD_32	LD_35	0	0.0000%
LD_33	LD_34	0	0.0000%
LD_33	LD_35	0	0.0000%
LD_34	LD_35	0	0.0000%

Table 2: Pairwise Intersection of Domain Blacklists