Title:	Penalty Cost Analysis	**Author:**	Laura Dyas, PE
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Date:	Updated: June 23, 2022	**Email:**	ldyas@group14eng.com
Description:	Summarizes the steps taken to determine the appropriate penalty cost for Energize Denver		

PROJECT SUMMARY

The Energize Denver Building Energy Performance Requirements were passed by the Denver City Council in November 2021. The adopted Ordinance states “Any covered building owner who violates any provision of this article XIV, including any rules or regulations adopted pursuant to this article, is subject to a civil penalty amount of **up to** $0.70 per year for each required kBtu reduction that the owner’s covered building fails to achieve in that year.” The $0.70/kBtu maximum was determined based on the estimated cost of compliance by installing onsite solar. Group14 was contracted to analyze the cost of compliance through other means including lighting, controls, equipment, and envelope upgrades. Group14 compiled data from 28 past energy audit projects with contractor implementation costs and performed the following:

- Noted representative buildings and building types
- Evaluated the baseline EUIs compared to EUI targets for example buildings
- Reviewed identified energy measures, cost, and savings
- Reviewed percent savings and cost per area ($/SF) for various measures and for the combined energy project
- Calculated the implementation cost per energy savings ($/kBtu) and the total cost of compliance to reach the EUI target

Following this analysis, Group14 worked with the City and County of Denver to determine the appropriate cost of compliance to reach the 2030 target. The City has determined the total cost of compliance to reach the 2030 target will be set at the top 15th percentile cost/kBtu.

Metric	Energy Savings (%)	Costs/ Savings ($/kBtu)	Cost/ Area ($/SF)	Simple Payback (Yr)	Costs/ Savings with Rebate ($/kBtu)	Cost with Rebate/ Area ($/SF)	Simple Payback with Rebate (Yr)
Min	4%	$ 0.06	$ 0.27	3.0	$ 0.06	$ 0.27	3.0
Median	34%	$ 0.33	$ 11.41	13.5	$ 0.32	$ 10.71	12.1
Average	34%	$ 0.38	$ 9.77	15.8	$ 0.36	$ 9.24	14.9
Top 15th Percentile	**54%**	**$ 0.63**	**$ 16.72**	**19.9**	**$ 0.62**	**$ 14.57**	**18.7**
Max	57%	$ 1.15	$ 16.96	66.6	$ 1.14	$ 16.96	63.2

The $0.63/kBtu cost per savings presented is the total cost of compliance to reach the 2030 target. Using the following equation, this cost was spread over the three compliance periods (i.e. 2024, 2027, and 2030), resulting in a cost of $0.29/kBtu per compliance period.

$$Compliance\ Period\ Cost = \frac{\$0.63/kBtu \times Total\ 2030\ kBtu\ Savings\ Required)}{(2024\ kBtu\ Savings\ Required + 2027\ kBtu\ Savings\ Required + 2030\ kBtu\ Savings\ Required)}$$

COMPLIANCE COST ANALYSIS METHODOLOGY

Project Selection Criteria

Group14 selected 28 projects to analyze the energy savings and implementation costs. The project selection criteria are summarized below:

- All project scopes were an energy audit or retro-commissioning with implementation costs provided by a contractor. In many cases multiple quotes were collected for each measure.
- All projects have been conducted in the last 5 years.
- All projects are located in Colorado. Seven are located in Denver and another 17 are located in the Denver metro.
- Projects selected represent a variety of building types including offices, multi-family housing, hotels, and storage/warehouses.

A table with detailed project information can be found in Appendix A.

Energy Conservation Measure Review

A list of all implemented energy conversation measures (ECM) was compiled to determine which buildings were modeled to comply with the EUI targets, the percent savings, the cost per area ($/SF), and the cost per savings ($/kBtu). All measures were grouped into one of the follow categories:

- Lighting Upgrade
- Lighting Controls
- BAS Upgrade
- RCx Measure
- HVAC Upgrade
- Plumbing Upgrade
- Envelope Upgrade
- Solar Installation
- Misc Upgrade

To remove outliers in the data, the standard deviation for each ECM category was calculated and measures two or more standard deviations away from the mean were removed from the data set.

The table below is a summary of cost per savings by measure type not including utility rebates.

ECM Category	Min Costs/ Savings ($/kBtu)	Median Costs/ Savings ($/kBtu)	Average Costs/ Savings ($/kBtu)	Top 15th Percentile ($/kBtu)	Max Costs/ Savings ($/kBtu)
Lighting Upgrade	$ 0.11	$ 0.23	$ 0.27	$ 0.41	$ 0.47
Lighting Controls	$ 0.26	$ 0.56	$ 0.57	$ 0.80	$ 0.91
BAS Upgrade	$ 0.04	$ 0.15	$ 0.15	$ 0.22	$ 0.33
RCx Measure	$ 0.00	$ 0.04	$ 0.05	$ 0.11	$ 0.19
HVAC Upgrade	$ 0.03	$ 0.31	$ 0.75	$ 1.67	$ 3.47
Plumbing Upgrade	$ 0.00	$ 0.31	$ 0.33	$ 0.68	$ 0.77
Envelope Upgrade	$ 0.15	$ 0.54	$ 1.14	$ 2.45	$ 3.74
Solar Installation	$ 0.36	$ 0.53	$ 0.55	$ 0.68	$ 0.88
Misc Upgrade	$ 0.05	$ 0.63	$ 0.62	$ 0.94	$ 1.15

The table below is a summary of cost per savings by measure type including utility rebates and tax credits. It should be noted that these are very similar to the cost per savings without rebates. Also, these were the rebates available at the time the project was complete.

ECM Category	Min Costs/ Savings ($/kBtu)	Median Costs/ Savings ($/kBtu)	Average Costs/ Savings ($/kBtu)	Top 15th Percentile ($/kBtu)	Max Costs/ Savings ($/kBtu)
Lighting Upgrade	$ 0.07	$ 0.19	$ 0.22	$ 0.34	$ 0.45
Lighting Controls	$ 0.26	$ 0.55	$ 0.56	$ 0.78	$ 0.89
BAS Upgrade	$ 0.04	$ 0.14	$ 0.14	$ 0.22	$ 0.30
RCx Measure	$ 0.00	$ 0.04	$ 0.05	$ 0.08	$ 0.19
HVAC Upgrade	$ 0.03	$ 0.31	$ 0.74	$ 1.67	$ 3.47
Plumbing Upgrade	$ 0.00	$ 0.31	$ 0.33	$ 0.68	$ 0.77
Envelope Upgrade	$ 0.15	$ 0.54	$ 1.13	$ 2.37	$ 3.73
Solar Installation	$ 0.18	$ 0.26	$ 0.28	$ 0.33	$ 0.44
Misc Upgrade	$ 0.05	$ 0.62	$ 0.62	$ 0.94	$ 1.15

The largest rebate/ incentive impacts can be seen on lighting upgrades and solar. There are also rebates available for HVAC and BAS upgrades. However, most HVAC rebates, such as upgrading to a high efficiency RTU, are paid directly to the supplier/ mechanical contractor and not to the building owner. This lowers the overall cost of the upgrade, but the owner does not see the cost impact. BAS upgrades are a custom rebate through Xcel and must be preapproved.

The table below shows the average simple payback by measure type both with and without rebates.

ECM Category	Average Simple Payback without Rebates (Yr)	Average Simple Payback with Rebates (Yr)
Lighting Upgrade	7.1	5.8
Lighting Controls	43.6	42.7
BAS Upgrade	17.9	17.6
RCx Measure	3.4	3.2
HVAC Upgrade	40.0	38.8
Plumbing Upgrade	13.4	13.2
Envelope Upgrade	106.7	105.9
Solar Installation	24.0	12.8
Misc Upgrade	41.9	41.8

Lighting upgrades and retro-commissioning (RCx) measure are the most cost-effective measures a building can take.

APPENDIX A – PROJECT DETAILS

Building Summary

Project: Denver Building Policy Tool

					Baseline Energy Use		Energy Use Savings				Implementation Costs					Compliance Cost Analysis			
Building #	Building Type	Year Built	Area (SF)	Included in Energize Denver?	Electric Use (kWh)	Natural Gas Use (Therms)	Electric Savings (kWh)	Natural Gas Savings (Therms)	Percent Savings (%)	Cost Savings ($)	Total Costs ($)	Simple Payback (Yr)	Utility Rebate ($)	Cost after Rebate ($)	Simple Payback w/ Rebate (Yr)	Costs/ Savings ($/kBtu)	Costs/ Savings with Rebate ($/kBtu)	Costs/ Area ($/SF)	Costs/ Area with Rebate ($/SF)
1	Hotel	1988 (1996 exp) / 2018 renovations	106,547	No	1,018,360	83,924	230,348	48,338	47%	$ 59,013	$ 1,790,610	30.3	$ 5,648	$ 1,784,962	30.2	$ 0.32	$ 0.32	$ 16.81	$ 16.75
2	Hotel	1989 (reno 2017)	360,000	No	7,286,786	348,180	3,558,394	109,718	39%	$ 406,976	$ 5,721,215	14.1	$ 147,000	$ 5,574,215	13.7	$ 0.25	$ 0.24	$ 15.89	$ 15.48
3	Multifamily Housing	1938	26,250	No	82,500	10,477	10,377	3,899	32%	$ 4,323	$ 288,087	66.6	$ -	$ 288,087	66.6	$ 0.68	$ 0.68	$ 10.97	$ 10.97
4	Non-Refrigerated Warehouse	1949	60,000	No	591,600	31,630	106,711	0	7%	$ 14,650	$ 56,790	3.9	$ 5,870	$ 50,920	3.5	$ 0.16	$ 0.14	$ 0.95	$ 0.85
5	Office	1977	111,786	Yes	1,845,165	52,467	98,221	1,711	4%	$ 9,967	$ 30,092	3.0	$ -	$ 30,092	3.0	$ 0.06	$ 0.06	$ 0.27	$ 0.27
6	Office	1974	30,964	Yes	358,080	9,385	185,835	2,821	42%	$ 20,979	$ 364,985	17.4	$ 9,365	$ 355,620	17.0	$ 0.40	$ 0.39	$ 11.79	$ 11.48
7	Office	1971	22,000	Yes	375,040	18,824	121,777	11,305	49%	$ 25,033	$ 335,695	13.4	$ 14,885	$ 320,810	12.8	$ 0.22	$ 0.21	$ 15.26	$ 14.58
8	Office	1983	83,362	No	920,800	32,980	435,177	7,777	35%	$ 48,950	$ 402,491	8.2	$ 43,939	$ 358,552	7.3	$ 0.18	$ 0.16	$ 4.83	$ 4.30
9	Office	1980s	52,000	No	701,200	19,060	810,992	3,985	74%	$ 71,935	$ 1,006,651	14.0	$ 352,295	$ 654,356	9.1	$ 0.32	$ 0.21	$ 19.36	$ 12.58
10	Office	1986	20,000	No	477,760	0	273,108	0	57%	$ 24,759	$ 334,753	13.5	$ 141,075	$ 193,678	7.8	$ 0.36	$ 0.21	$ 16.74	$ 9.68
11	Office	1985	90,094	No	2,657,450	0	1,094,478	0	41%	$ 90,058	$ 1,527,990	17.0	$ 47,294	$ 1,480,696	16.4	$ 0.41	$ 0.40	$ 16.96	$ 16.44
12	Office	1973	95,952	Yes	1,591,478	41,758	467,907	16,885	34%	$ 59,344	$ 1,058,493	17.8	$ 97,963	$ 960,530	16.2	$ 0.32	$ 0.29	$ 11.03	$ 10.01
13	Office	1981	39,938	No	277,680	10,982	192,343	4,543	54%	$ 19,452	$ 130,769	6.7	$ 22,808	$ 107,961	5.6	$ 0.12	$ 0.10	$ 3.27	$ 2.70
14	Office	1981	24,210	No	180,800	10,678	141,596	4,269	54%	$ 15,849	$ 77,897	4.9	$ 14,751	$ 63,146	4.0	$ 0.09	$ 0.07	$ 3.22	$ 2.61
15	Office	1997	28,000	No	431,200	7,454	196,114	4,508	51%	$ 26,438	$ 357,183	13.5	$ 21,964	$ 335,219	12.7	$ 0.32	$ 0.30	$ 12.76	$ 11.97
16	Office	1982	77,581	No	835,600	25,778	266,365	8,922	33%	$ 50,043	$ 575,607	11.5	$ 37,209	$ 538,398	10.8	$ 0.32	$ 0.30	$ 7.42	$ 6.94
17	Office	1971	112,938	No	1,444,094	56,809	1,924,579	19,729	80%	$ 200,244	$ 3,787,247	18.9	$ 1,139,861	$ 2,647,386	13.2	$ 0.44	$ 0.31	$ 33.53	$ 23.44
18	Office	1976 (2014 reno)	151,500	Yes	1,749,878	44,431	574,229	11,546	30%	$ 72,611	$ 1,451,869	20.0	$ 85,350	$ 1,366,519	18.8	$ 0.47	$ 0.44	$ 9.58	$ 9.02
19	Office	1978 (2016 addition)	97,600	Yes	1,153,299	1,184	405,735	0	34%	$ 45,266	$ 329,445	7.3	$ 49,131	$ 280,314	6.2	$ 0.24	$ 0.20	$ 3.38	$ 2.87
20	Office	2001	61,200	No	634,575	13,457	280,243	52	27%	$ 34,243	$ 389,309	11.4	$ 49,314	$ 339,995	9.9	$ 0.40	$ 0.35	$ 6.36	$ 5.56
21	Office	1986	79,189	No	1,077,856	43,920	271,009	822	12%	$ 35,832	$ 1,160,103	32.4	$ 17,350	$ 1,142,753	31.9	$ 1.15	$ 1.13	$ 14.65	$ 14.43
22	Office	1984	93,055	No	1,526,438	0	366,864	0	24%	$ 36,321	$ 598,156	16.5	$ 22,000	$ 576,156	15.9	$ 0.48	$ 0.46	$ 6.43	$ 6.19
23	Office	1996	78,886	No	1,966,032	0	565,781	-7,146	18%	$ 91,139	$ 1,101,325	12.1	$ 5,338	$ 1,095,987	12.0	$ 0.91	$ 0.90	$ 13.96	$ 13.89
24	Office	1974	122,000	No	1,356,010	41,342	469,803	9,667	29%	$ 60,045	$ 1,632,284	27.2	$ -	$ 1,632,284	27.2	$ 0.64	$ 0.64	$ 13.38	$ 13.38
25	Office	1984	37,071	No	892,160	0	458,178	0	51%	$ 45,108	$ 604,819	13.4	$ 100,898	$ 503,921	11.2	$ 0.39	$ 0.32	$ 16.32	$ 13.59
26	Office	1998	79,818	No	1,757,640	0	150,409	0	9%	$ 15,210	$ 175,490	11.5	$ 10,156	$ 165,334	10.9	$ 0.34	$ 0.32	$ 2.20	$ 2.07
27	Office	1997	78,952	No	1,450,086	1,045	579,234	-4,903	29%	$ 71,312	$ 952,635	13.4	$ 18,343	$ 934,292	13.1	$ 0.64	$ 0.63	$ 12.07	$ 11.83
28	Self-Storage Facility	1986 (reno in 2001 and 2017)	118,000	No	1,608,777	21,007	217,354	729	11%	$ 20,261	$ 140,665	6.9	$ 16,557	$ 124,108	6.1	$ 0.17	$ 0.15	$ 1.19	$ 1.05

Building
Project:

EUI Analysis

Building #	Baseline EUI (kBtu/SF)	EUI Post Savings (kBtu/SF)	Energize Denver Target EUI (kBtu/SF)	Meets EUI Target	Additional Savings Required	Notes
1	111	59	61	Yes	N/A	
2	166	102	61	No	40%	
3	51	34	44	Yes	N/A	
4	86	80	27	No	66%	
5	103	99	48	No	51%	
6	70	40	48	Yes	N/A	
7	144	73	48	No	35%	
8	77	50	48	No	4%	
9	83	22	48	Yes	N/A	
10	82	35	48	Yes	N/A	
11	101	59	48	No	19%	
12	100	66	48	No	27%	
13	51	23	48	Yes	N/A	
14	70	32	48	Yes	N/A	
15	79	39	48	Yes	N/A	
16	70	47	48	Yes	N/A	
17	94	18	48	Yes	N/A	
18	69	48	48	No	0%	
19	42	27	48	Yes	N/A	
20	57	42	48	Yes	N/A	
21	102	89	48	No	46%	
22	56	43	48	Yes	N/A	Audit in Progress
23	85	70	48	No	31%	
24	72	51	48	No	5%	
25	82	40	48	Yes	N/A	
26	75	69	48	No	30%	
27	64	45	48	Yes	N/A	
28	64	57	8	No	86%	

APPENDIX B – DISTRIBUTION OF COSTS BY ECM

Cost per savings without rebates.

ECM Category	Min Costs/ Savings ($/kBtu)	15th Percentile ($/kBtu)	25th Percentile ($/kBtu)	40th Percentile ($/kBtu)	Median Costs/ Savings ($/kBtu)	60th Percentile ($/kBtu)	75th Percentile ($/kBtu)	85th Percentile ($/kBtu)	Max Costs/ Savings ($/kBtu)	Average Costs/ Savings ($/kBtu)
RCx Measure	$ 0.00	$ 0.00	$ 0.00	$ 0.02	$ 0.04	$ 0.05	$ 0.07	$ 0.10	$ 0.19	$ 0.05
HVAC Upgrade	$ 0.03	$ 0.11	$ 0.18	$ 0.27	$ 0.31	$ 0.53	$ 1.16	$ 1.67	$ 3.47	$ 0.75
Plumbing Upgrade	$ 0.04	$ 0.20	$ 0.31	$ 0.43	$ 0.51	$ 0.57	$ 0.67	$ 0.71	$ 0.77	$ 0.46
BAS Upgrade	$ 0.04	$ 0.05	$ 0.06	$ 0.10	$ 0.15	$ 0.16	$ 0.20	$ 0.22	$ 0.33	$ 0.15
Misc Upgrade	$ 0.05	$ 0.15	$ 0.41	$ 0.58	$ 0.63	$ 0.77	$ 0.92	$ 0.94	$ 1.15	$ 0.62
Lighting Upgrade	$ 0.11	$ 0.12	$ 0.16	$ 0.22	$ 0.23	$ 0.31	$ 0.36	$ 0.41	$ 0.47	$ 0.27
Envelope Upgrade	$ 0.15	$ 0.23	$ 0.31	$ 0.43	$ 0.54	$ 1.03	$ 1.48	$ 2.45	$ 3.74	$ 1.14
Lighting Controls	$ 0.26	$ 0.35	$ 0.41	$ 0.50	$ 0.56	$ 0.61	$ 0.72	$ 0.80	$ 0.91	$ 0.57
Solar Installation	$ 0.37	$ 0.39	$ 0.41	$ 0.43	$ 0.44	$ 0.46	$ 0.48	$ 0.49	$ 0.51	$ 0.44

Cost per savings with rebates.

ECM Category	Min Costs/ Savings ($/kBtu)	15th Percentile ($/kBtu)	25th Percentile ($/kBtu)	40th Percentile ($/kBtu)	Median Costs/ Savings ($/kBtu)	60th Percentile ($/kBtu)	75th Percentile ($/kBtu)	85th Percentile ($/kBtu)	Max Costs/ Savings ($/kBtu)	Average Costs/ Savings ($/kBtu)
RCx Measure	$ 0.00	$ 0.00	$ 0.00	$ 0.02	$ 0.04	$ 0.04	$ 0.07	$ 0.08	$ 0.19	$ 0.05
BAS Upgrade	$ 0.04	$ 0.05	$ 0.06	$ 0.10	$ 0.14	$ 0.16	$ 0.20	$ 0.22	$ 0.30	$ 0.14
Lighting Upgrade	$ 0.07	$ 0.09	$ 0.11	$ 0.17	$ 0.19	$ 0.24	$ 0.28	$ 0.34	$ 0.45	$ 0.22
Solar Installation	$ 0.23	$ 0.24	$ 0.24	$ 0.24	$ 0.25	$ 0.25	$ 0.25	$ 0.26	$ 0.26	$ 0.25
HVAC Upgrade	$ 0.03	$ 0.09	$ 0.15	$ 0.26	$ 0.31	$ 0.53	$ 1.16	$ 1.67	$ 3.47	$ 0.74
Misc Upgrade	$ 0.05	$ 0.15	$ 0.41	$ 0.58	$ 0.62	$ 0.76	$ 0.92	$ 0.94	$ 1.15	$ 0.62
Lighting Controls	$ 0.26	$ 0.35	$ 0.40	$ 0.49	$ 0.55	$ 0.60	$ 0.70	$ 0.78	$ 0.89	$ 0.56
Plumbing Upgrade	$ 0.04	$ 0.20	$ 0.31	$ 0.43	$ 0.51	$ 0.57	$ 0.67	$ 0.71	$ 0.77	$ 0.46
Envelope Upgrade	$ 0.15	$ 0.20	$ 0.26	$ 0.43	$ 0.54	$ 1.03	$ 1.48	$ 2.37	$ 3.73	$ 1.13

APPENDIX C – BUILDING SUMMARY RESULTS

Building Results that Meet Energize Denver

Metric	Energy Savings (%)	Costs/ Savings ($/kBtu)	Cost/ Area ($/SF)	Simple Payback (Yr)	Costs/ Savings with Rebate ($/kBtu)	Cost with Rebate/ Area ($/SF)	Simple Payback with Rebate (Yr)
Min	24%	$ 0.09	$ 3.22	4.9	$ 0.08	$ 3.06	4.7
15th Percentile	29%	$ 0.23	$ 3.37	7.3	$ 0.22	$ 3.26	7.0
25th Percentile	32%	$ 0.31	$ 6.38	11.4	$ 0.25	$ 5.92	9.9
40th Percentile	36%	$ 0.32	$ 8.13	11.9	$ 0.32	$ 7.63	11.3
Median	44%	$ 0.33	$ 11.38	13.4	$ 0.32	$ 9.59	11.4
60th Percentile	47%	$ 0.35	$ 12.01	13.5	$ 0.35	$ 11.09	12.0
75th Percentile	53%	$ 0.40	$ 12.71	15.9	$ 0.38	$ 11.51	15.4
85th Percentile	54%	$ 0.49	$ 14.17	18.0	$ 0.46	$ 12.76	17.7
Max	57%	$ 0.68	$ 16.81	66.6	$ 0.64	$ 16.76	63.2
Average	42%	$ 0.36	$ 9.85	17.0	$ 0.33	$ 9.16	16.0

Building Results that Do Not Meet Energize Denver

Metric	Energy Savings (%)	Costs/ Savings ($/kBtu)	Cost/ Area ($/SF)	Simple Payback (Yr)	Costs/ Savings with Rebate ($/kBtu)	Cost with Rebate/ Area ($/SF)	Simple Payback with Rebate (Yr)
Min	4%	$ 0.06	$ 0.06	3.0	$ 0.06	$ 0.06	3.0
15th Percentile	8%	$ 0.17	$ 1.18	6.8	$ 0.15	$ 0.94	4.3
25th Percentile	11%	$ 0.19	$ 2.86	9.1	$ 0.18	$ 2.67	8.5
40th Percentile	20%	$ 0.26	$ 9.87	12.3	$ 0.26	$ 8.47	12.3
Median	30%	$ 0.33	$ 12.21	13.7	$ 0.32	$ 12.14	13.5
60th Percentile	33%	$ 0.36	$ 13.84	15.7	$ 0.32	$ 13.33	13.9
75th Percentile	38%	$ 0.45	$ 15.11	17.6	$ 0.40	$ 14.39	16.8
85th Percentile	41%	$ 0.65	$ 15.70	20.4	$ 0.65	$ 15.28	18.3
Max	49%	$ 1.15	$ 1.15	32.4	$ 1.15	$ 1.15	32.1
Average	26%	$ 0.40	$ 9.70	14.5	$ 0.38	$ 9.32	13.8

All Building Results Combined

DRAFT PENALTY COST ANALYSIS

Metric	Energy Savings (%)	Costs/ Savings ($/kBtu)	Cost/ Area ($/SF)	Simple Payback (Yr)	Costs/ Savings with Rebate ($/kBtu)	Cost with Rebate/ Area ($/SF)	Simple Payback with Rebate (Yr)
Min	4%	$ 0.06	$ 0.27	3.0	$ 0.06	$ 0.27	3.0
15th Percentile	13%	$ 0.17	$ 3.22	7.0	$ 0.16	$ 3.06	6.3
25th Percentile	27%	$ 0.23	$ 4.47	10.6	$ 0.23	$ 4.18	9.2
40th Percentile	32%	$ 0.32	$ 9.15	12.0	$ 0.31	$ 7.74	11.4
Median	34%	$ 0.33	$ 11.41	13.5	$ 0.32	$ 10.71	12.1
60th Percentile	39%	$ 0.36	$ 12.62	14.1	$ 0.34	$ 11.47	13.5
75th Percentile	46%	$ 0.42	$ 14.19	17.1	$ 0.39	$ 13.50	16.5
85th Percentile	50%	$ 0.63	$ 15.67	19.9	$ 0.47	$ 15.22	17.8
Max	57%	$ 1.15	$ 16.96	66.6	$ 1.14	$ 16.96	63.2
Average	34%	$ 0.38	$ 9.77	15.8	$ 0.36	$ 9.24	14.9