Basic Blocks vs Graph Vertices

	E4	E8	E16	E32
5	1808242	1429897	2014153	1696746
6	1691708	1729676	1778331	1629258
7	1977773	1458075	1822447	1628971
8	2240370	1880820	1891705	2034524
9	1725569	1812115	1908074	2551947
10	2459397	2281046	2842678	3669373
11	2654478	3723998	4679378	6515957
12	3513091	5634615	7837375	13161791
13	5802893	8960046	14974988	25498508
14	10472033	17105610	29778303	53846658
15	19046623	33252641	60846620	110752990
16	37541541	65950606	122087298	229058110
17	74593527	133827646	250721509	472671621
18	149932987	271659065	514857170	978933284
19	295711136	550590994	1052583197	2028865106
20	595573691	1114085588	2144809011	4167368198
21	1203503598	2256197335	4291003239	8389784272
22	2426381048	4576312812	8731516970	17123336316

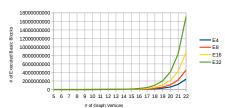## Basic Block vs Vertices

Read Memory Instructions vs Graph Vertices

	E4	E8	E16	E32
5	1402721	1370221	1111997	1434655
6	1339568	1102671	1427291	1423168
7	1324748	1393524	1365089	1661281
8	1500691	1374719	1653713	1848910
9	1482126	1866788	2235497	2955593
10	2008968	2530144	3779258	5452605
11	2963143	4582858	6736462	10721441
12	5225929	7833106	13445355	22193583
13	9458207	15411988	26742653	46599739
14	17517939	30222904	54670801	98595104
15	34039855	61422584	109298287	208179139
16	68524891	120315782	224839319	423133808
17	137596863	245511666	462803768	879048678
18	277794777	500427960	954517082	1820956801
19	540741593	1015926168	1954433957	3779599941
20	1089843251	2058796395	3985287359	7771372861
21	2204093817	4172795470	7840166520	15390833953
22	4447907865	8466201411	15966867370	31428374597

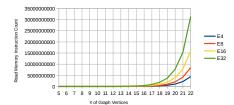Write Memory Instructions vs Graph Vertices

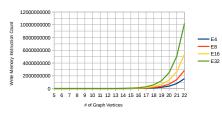|	E4	E8	E16	E32
5	243543	248549	249387	253007
6	253295	259757	273348	282147
7	272536	291299	315360	351919
8	315198	356652	423900	522255
9	397279	494822	651736	885368
10	578032	789996	1142757	1722170
11	928947	1387913	2179978	3491348
12	1648817	2631486	4345764	7273538
13	3121976	5174747	8881228	15330060
14	6056534	10383870	18236106	32151528
15	11989141	20914884	37472604	67323510
16	24050209	42171457	76656210	140026298
17	48218025	85597604	156347957	288735466
18	96859885	173137210	319436381	592332215
19	193318304	349284655	649083553	1217143780
20	387206895	703422179	1314046024	2482938694
21	777897851	1414349275	2650237976	5039059846
22	1560661082	2848859411	5351129422	10205820403

Total Instructions vs Graph Vertices

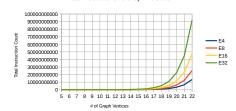|	E4	E8	E16	E32
5	7008469	5704732	7738825	6650875
6	6634475	6782465	7009533	6501691
7	7718413	5963682	7300802	6730356
8	8798567	7661211	7923819	8751456
9	7314365	7917049	8768332	11815654
10	10538750	10589086	13596221	18631057
11	12436751	17766224	23488266	34237825
12	18034530	28432575	41778216	70070131
13	31331933	48692945	81938211	140332857
14	57232330	94799055	165349256	296341835
15	107580924	186964857	332942289	615059991
16	213471341	366656899	673552530	1254165462
17	426127066	744775112	1382555799	2591748729
18	856346185	1512036256	2838717308	5361587225
19	1664245119	3061877129	5800262476	11103015220
20	3348178410	6188378382	11806748796	22790746451
21	6752455700	12519214350	23279846105	45258749159
22	13594320172	25353858470	47336830095	92282429709

Read Memory Instructions vs Graph Vertices

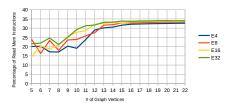## Write Memory Instructions vs Graph Vertices

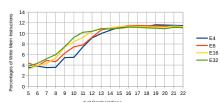## Total Instructions vs Graph Vertices

Read Memory Instruction Percentages vs Graph Vertices

	E4	E8	E16	E32
5	20.01465655	24.01902491	14.36906766	21.57092112
6	20.19101738	16.25767328	20.3621411	21.88919775
7	17.16347648	23.36683948	18.69779512	24.68340456
8	17.05608425	17.94388642	20.87015112	21.12688449
9	20.26322176	23.57934124	25.49512268	25.01421419
10	19.06267821	23.8938847	27.79638548	29.26621394
11	23.82570014	25.79534064	28.68011628	31.31460892
12	28.97735067	27.54975939	32.18269301	31.67338591
13	30.18711613	31.65137783	32.63758468	33.20657756
14	30.60846728	31.88101822	33.06383247	33.27073412
15	31.64116252	32.85247559	32.82799771	33.84696486
16	32.10027664	32.81426923	33.3811112	33.73827623
17	32.2901017	32.96453682	33.47450919	33.91720301
18	32.43954161	33.09629369	33.62494319	33.96301738
19	32.49170371	33.17984769	33.69561231	34.04120292
20	32.55033387	33.26875423	33.75431652	34.09880794
21	32.64136656	33.33112888	33.67791387	34.00631754
22	32.71886942	33.39216167	33.73032655	34.0567264

Write Memory Instruction Percentages vs Graph Vertices

	E4	E8	E16	E32
5	3.474981483	4.356891787	3.222543474	3.804116
6	3.817860494	3.829831779	3.899660648	4.339594115
7	3.530984932	4.884549512	4.319525444	5.228831878
8	3.582378812	4.655295357	5.349693121	5.967635557
9	5.431489952	6.250081312	7.432838994	7.493178118
10	5.48482505	7.460473926	8.404960467	9.243544261
11	7.469370417	7.812087701	9.281136377	10.19734168
12	9.142555975	9.255180018	10.40198557	10.38036878
13	9.964198506	10.6273034	10.83893325	10.92407033
14	10.5823649	10.95355856	11.02884067	10.84947321
15	11.14430008	11.18653224	11.25498479	10.94584447
16	11.26624721	11.50161285	11.38088072	11.16489827
17	11.31541008	11.49308061	11.30861822	11.14056555
18	11.31083278	11.45059911	11.25284226	11.04770267
19	11.61597542	11.40753336	11.19058932	10.96228147
20	11.56470318	11.36682561	11.12961787	10.89450361
21	11.52022147	11.29742838	11.384259	11.1338911
22	11.48024368	11.23639392	11.30436789	11.05933213

Read Memory Instruction Percentages vs Graph Vertices

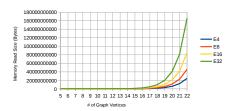

Write Memory Instruction Percentages vs Graph Vertices

Memory Read Size vs Graph Vertices

	E4	E8	E16	E32
5	6082580	5909857	4944177	6262682
6	5886109	4968964	6331678	6325730
7	5915194	6304187	6264004	7564767
8	6826935	6499711	7904452	9109462
9	7125376	9124010	11260512	15140824
10	10147440	13112748	19544284	28768399
11	15652588	24029959	35845397	57206782
12	28085399	42446718	72025438	119192451
13	51972501	84050445	144734806	250710175
14	97376029	166170878	296518929	529699666
15	190694374	337353574	593088733	1115692532
16	383494025	661931897	1218440967	2264610033
17	769885362	1347594744	2502822026	4695796041
18	1551259464	2739385543	5144415710	9707302994
19	3018096977	5549428232	10507541328	20079457496
20	6072143443	11224146726	21378113962	41189440059
21	12245255972	22697730336	42042732427	81525837464
22	24653905627	45923595490	85405166606	1.6617E+011

Memory Write Size vs Graph Vertices

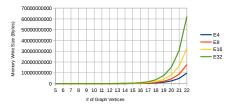|	E4	E8	E16	E32
5	1444369	1475334	1478102	1500872
6	1505578	1545685	1629714	1681780
7	1626812	1740758	1888659	2110364
8	1894371	2147696	2562096	3162765
9	2409306	3003440	3963421	5391705
10	3544416	4837592	6989242	10516568
11	5739962	8541067	13355143	21350110
12	10255468	16212625	26656201	44492432
13	19473404	31950560	54482044	93674857
14	37799618	64095997	111853601	196574579
15	74891303	129127043	229552690	411254822
16	150203142	260254604	469519609	854022755
17	301244012	527912612	958301556	1760988603
18	604939554	1067393660	1956586944	3615543230
19	1205485388	2152453297	3973765793	7423998713
20	2416147736	4335285935	8040431698	15136249963
21	4851631348	8719808992	16212356116	30694470342
22	9731055836	17552153514	32731339006	62198298110

Memory Read Size vs Graph Vertices

Memory Write Size vs Graph Vertices

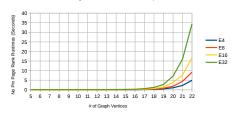|											
05_4_1	0	0.032	05_8_1	0	0.023	05_16_1	0	0.023	05_32_1	0	0.023
06_4_1	0	0.032	06_8_1	0	0.032	06_16_1	0	0.023	06_32_1	0	0.032
07_4_1	0	0.032	07_8_1	0	0.032	07_16_1	0	0.032	07_32_1	0	0.023
08_4_1	0	0.023	08_8_1	0	0.032	08_16_1	0	0.032	08_32_1	0	0.032
09_4_1	0	0.023	09_8_1	0	0.023	09_16_1	0	0.023	09_32_1	0	0.032
10_4_1	0	0.023	10_8_1	0	0.023	10_16_1	0	0.023	10_32_1	0	0.023
11_4_1	0	0.031	11_8_1	0	0.032	11_16_1	0	0.04	11_32_1	0	0.04
12_4_1	0	0.031	12_8_1	0	0.032	12_16_1	0	0.04	12_32_1	0	0.048
13_4_1	0	0.04	13_8_1	0	0.04	13_16_1	0	0.048	13_32_1	0	0.056
14_4_1	0	0.031	14_8_1	0	0.04	14_16_1	0	0.056	14_32_1	0	0.09
15_4_1	0	0.048	15_8_1	0	0.065	15_16_1	0	0.098	15_32_1	0	0.165
16_4_1	0	0.082	16_8_1	0	0.106	16_16_1	0	0.173	16_32_1	0	0.29
17_4_1	0	0.123	17_8_1	0	0.189	17_16_1	0	0.323	17_32_1	0	0.605
18_4_1	0	0.231	18_8_1	0	0.381	18_16_1	0	0.689	18_32_1	0	1.239
19_4_1	0	0.464	19_8_1	0	0.822	19_16_1	0	1.547	19_32_1	0	2.797
20_4_1	0	1.005	20_8_1	0	1.831	20_16_1	0	3.821	20_32_1	0	7.128
21_4_1	0	2.255	21_8_1	0	4.371	21_16_1	0	7.644	21_32_1	0	15.982
22_4_1	0	4.92	22_8_1	0	9.166	22_16_1	0	16.75	22_32_1	0	34.37

No Pin Page Rank Runtimes vs Graph Vertices

	E4	E8	E16	E32
5	0.032	0.023	0.023	0.023
6	0.032	0.032	0.023	0.032
7	0.032	0.023	0.032	0.032
8	0.023	0.032	0.023	0.023
9	0.023	0.023	0.023	0.032
10	0.023	0.023	0.023	0.023
11	0.031	0.032	0.04	0.04
12	0.031	0.032	0.04	0.048
13	0.04	0.04	0.048	0.056
14	0.031	0.04	0.056	0.09
15	0.048	0.065	0.098	0.165
16	0.082	0.106	0.173	0.29
17	0.123	0.189	0.323	0.605
18	0.231	0.381	0.689	1.239
19	0.464	0.822	1.547	2.797
20	1.005	1.831	3.821	7.128
21	2.255	4.371	7.644	15.982
22	4.92	9.166	16.75	34.37

No Pin Page Rank Runtimes vs Graph Vertices

05_4_1	0	0.859	0	0.773	05_8_1	0	0.859	0	0.765	05_16_1	0	0.842	0	0.823	05_32_1	0	0.892	0	0.774
06_4_1	0	0.842	0	0.773	06_8_1	0	0.859	0	0.757	06_16_1	0	0.867	0	0.765	06_32_1	0	0.85	0	0.773
07_4_1	0	0.85	0	0.79	07_8_1	0	0.867	0	0.757	07_16_1	0	0.842	0	0.757	07_32_1	0	0.825	0	0.79
08_4_1	0	0.867	0	0.807	08_8_1	0	0.834	0	0.765	08_16_1	0	0.842	0	0.749	08_32_1	0	0.875	0	0.79
09_4_1	0	0.892	0	0.79	09_8_1	0	0.9	0	0.798	09_16_1	0	0.859	0	0.765	09_32_1	0	0.867	0	0.764
10_4_1	0	0.892	0	0.782	10_8_1	0	0.875	0	0.857	10_16_1	0	0.842	0	0.765	10_32_1	0	0.851	0	0.765
11_4_1	0	0.867	0	0.798	11_8_1	0	0.909	0	0.798	11_16_1	0	0.867	0	0.84	11_32_1	0	0.875	0	0.799
12_4_1	0	0.892	0	0.79	12_8_1	0	0.9	0	0.815	12_16_1	0	0.875	0	0.807	12_32_1	0	0.884	0	0.782
13_4_1	0	0.884	0	0.807	13_8_1	0	0.892	0	0.815	13_16_1	0	0.984	0	0.845	13_32_1	0	0.967	0	0.848
14_4_1	0	0.909	0	0.807	14_8_1	0	0.942	0	0.832	14_16_1	0	1.009	0	0.865	14_32_1	0	1.117	0	0.932
15_4_1	0	0.942	0	0.832	15_8_1	0	1.042	0	0.898	15_16_1	0	1.159	0	0.957	15_32_1	0	1.417	0	1.132
16_4_1	0	1.117	0	0.907	16_8_1	0	1.234	0	0.965	16_16_1	0	1.475	0	1.198	16_32_1	0	2.008	0	1.523
17_4_1	0	1.242	0	1.049	17_8_1	0	1.542	0	1.215	17_16_1	0	2.141	0	1.565	17_32_1	0	3.249	0	2.289
18_4_1	0	1.692	0	1.323	18_8_1	0	2.283	0	1.665	18_16_1	0	3.574	0	2.422	18_32_1	0	5.898	0	3.951
19_4_1	0	2.524	0	1.848	19_8_1	0	3.884	0	2.707	19_16_1	0	6.456	0	4.396	19_32_1	0	11.429	0	7.503
20_4_1	0	4.457	0	3.114	20_8_1	0	7.589	0	5.034	20_16_1	0	13.794	0	9.127	20_32_1	0	24.689	0	16.601
21_4_1	0	8.805	0	5.871	21_8_1	0	15.547	0	10.227	21_16_1	0	27.695	0	18.601	21_32_1	0	52.429	0	34.473
22_4_1	0	17.811	0	11.494	22_8_1	0	32.485	0	21.055	22_16_1	0	58.03	0	37.676	22_32_1	1	52.212	1	13.499

Pin Page Rank Runtimes vs Graph Vertices

	E4	E8	E16	E32
5	0.816	0.812	0.8325	0.833
6	0.8075	0.808	0.816	0.8115
7	0.82	0.812	0.7995	0.8075
8	0.837	0.7995	0.7955	0.8325
9	0.841	0.849	0.812	0.8155
10	0.837	0.866	0.8035	0.808
11	0.8325	0.8535	0.8535	0.837
12	0.841	0.8575	0.841	0.833
13	0.8455	0.8535	0.9145	0.9075
14	0.858	0.887	0.937	1.0245
15	0.887	0.97	1.058	1.2745
16	1.012	1.0995	1.3365	1.7655
17	1.1455	1.3785	1.853	2.769
18	1.5075	1.974	2.998	4.9245
19	2.186	3.2955	5.426	9.466
20	3.7855	6.3115	11.4605	20.645
21	7.338	12.887	23.148	43.451
22	14.6525	26.77	47.853	92.8555

Pin Page Rank Runtimes vs Graph Vertices