

FAILED QUERIES

Baseline

benchmark	query	mean_duration	std_dev
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Filter Aggregate stats

benchmark	query	mean_duration	std_dev
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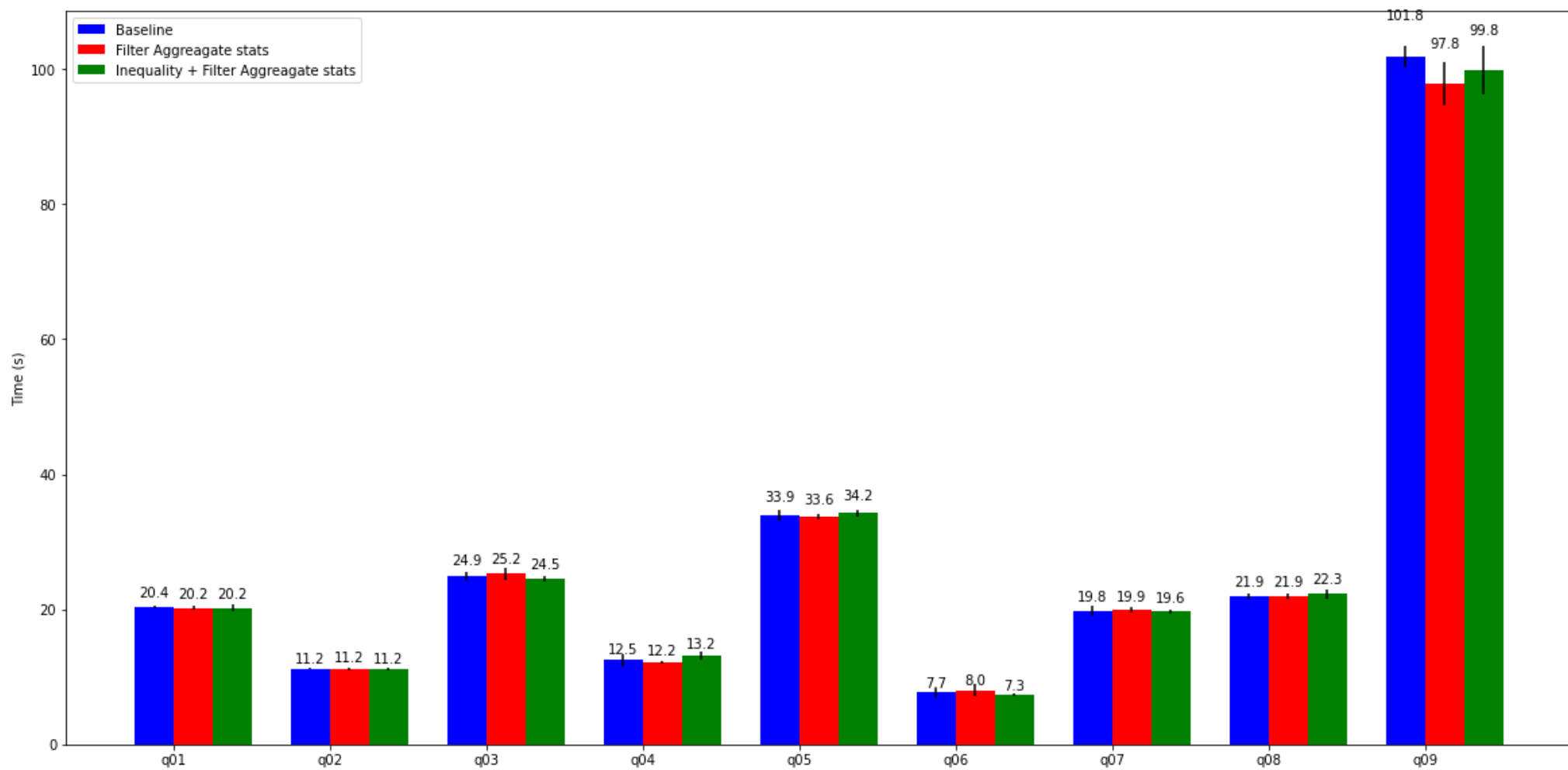
Inequality + Filter Aggregate stats

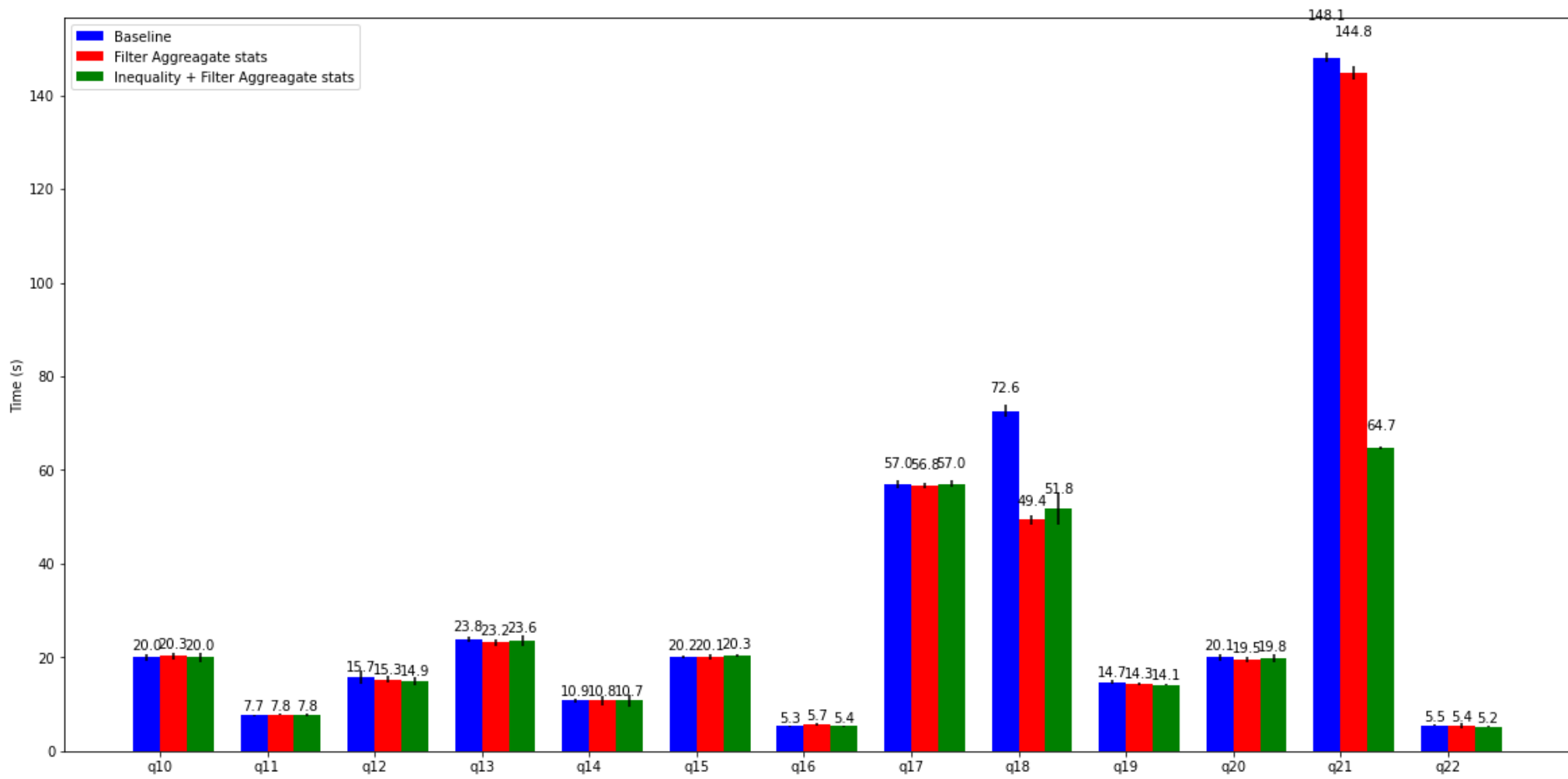
benchmark	query	mean_duration	std_dev
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SUMMARY

	label	TPCH wall time	TPC-DS wall time	TPCH CPU time	TPC-DS CPU time	TPCH physicalInputDataSize	TPC-DS physicalInputDataSize	TPCH peak memory	TPC-DS peak memory
0	Baseline	675.472333	1655.561000	80742.600000	215474.324667	1.041 TiB	2.283 TiB	1.902 TiB	1.024 TiB
1	Filter Aggregate stats	643.314667	1598.926667	74084.300000	206829.036167	1.041 TiB	2.283 TiB	1.838 TiB	0.998 TiB
2	Inequality + Filter Aggregate stats	567.658000	1558.853500	63440.700000	207721.322167	1.041 TiB	2.283 TiB	1.040 TiB	0.994 TiB

TPC-H Comparison (DURATION)

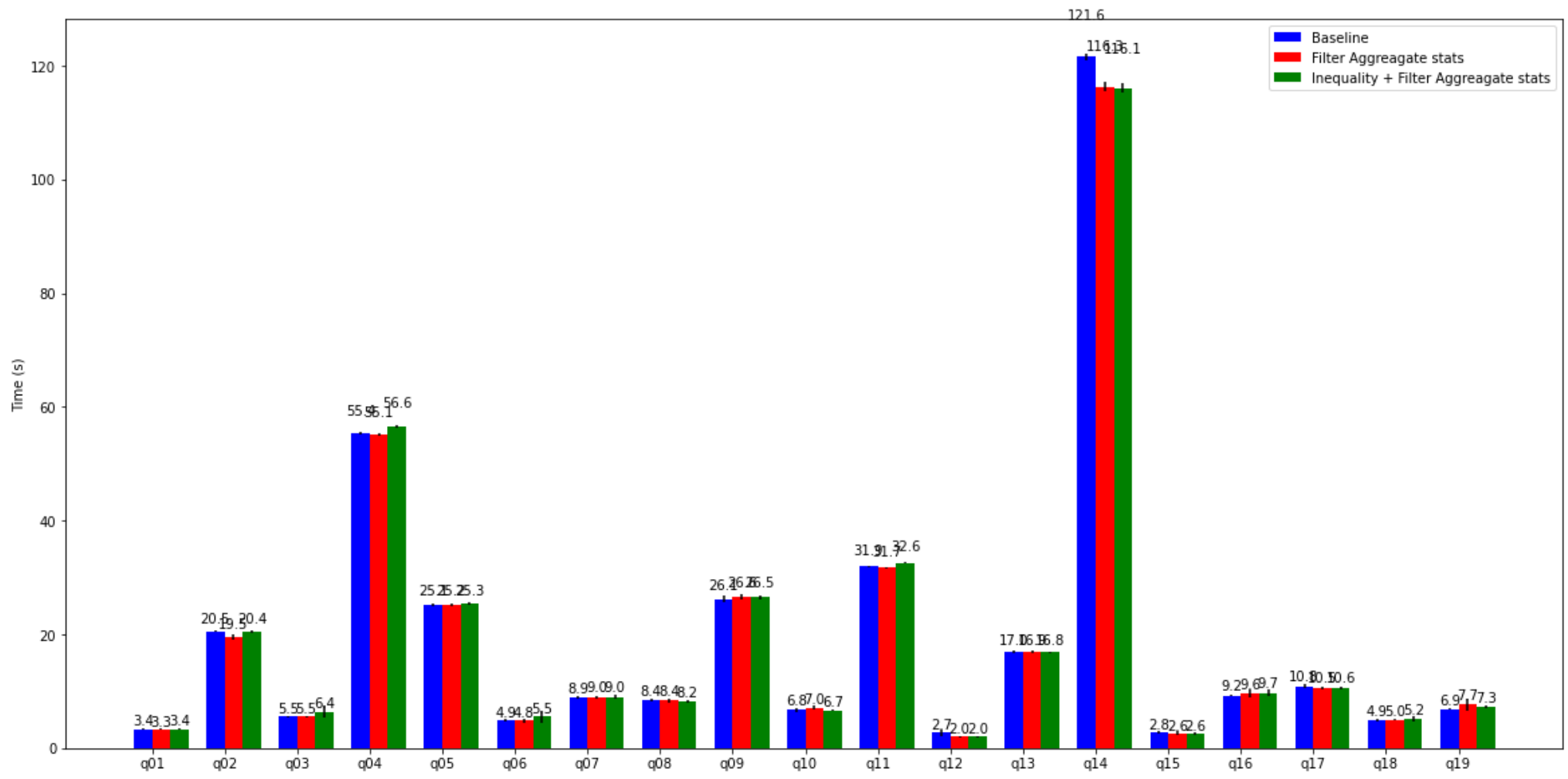


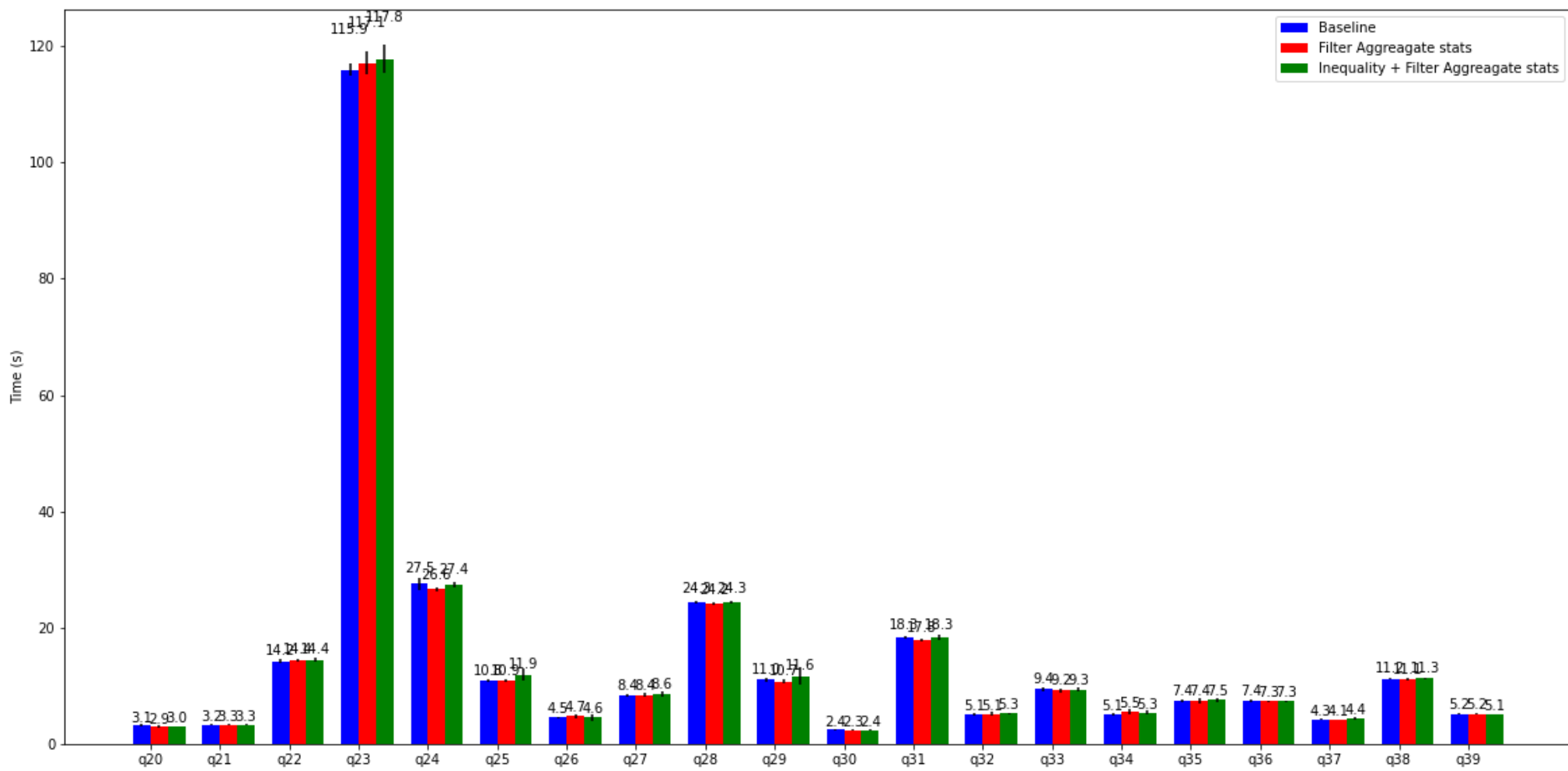


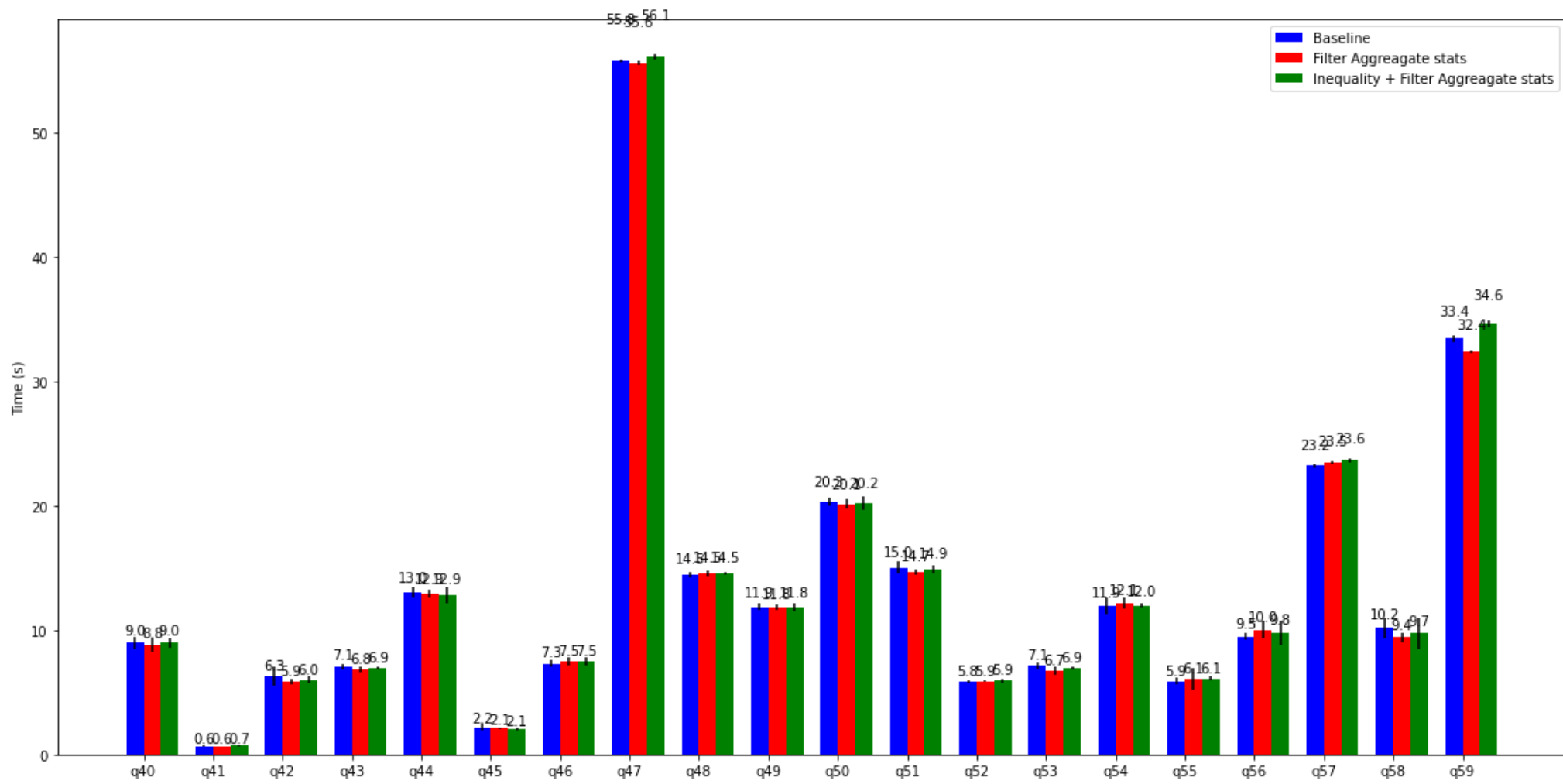
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0	presto/tpch: q01	20.362333	0.189501	20.190167	0.296340	20.167333	0.501813
1	presto/tpch: q02	11.175667	0.103239	11.230000	0.207336	11.194667	0.163439
2	presto/tpch: q03	24.945333	0.531843	25.246500	0.854160	24.490667	0.412034
3	presto/tpch: q04	12.496333	0.932110	12.174500	0.208293	13.177167	0.554571
4	presto/tpch: q05	33.942333	0.772331	33.625833	0.388376	34.219000	0.406531

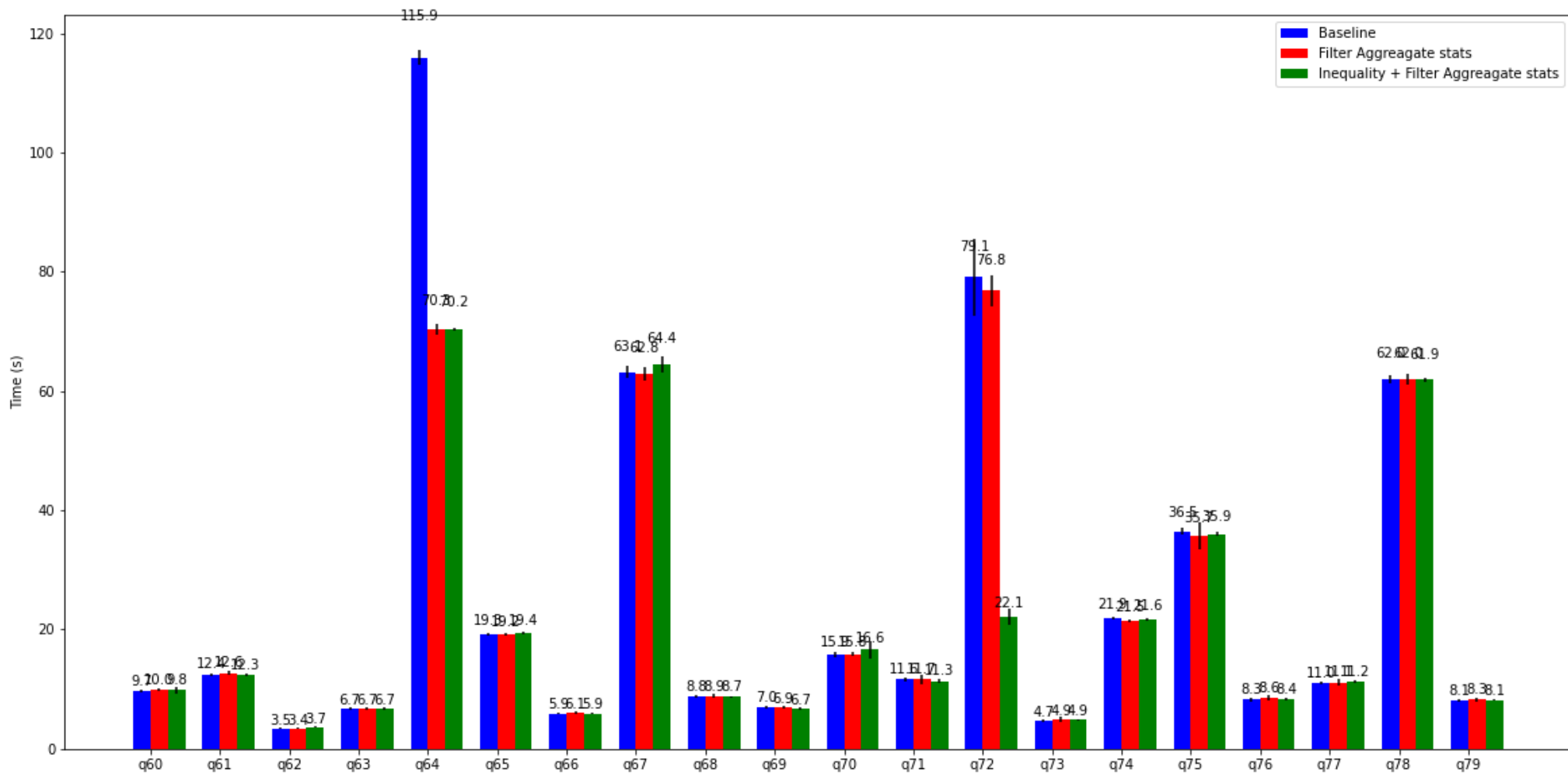
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
5	presto/tpch: q06	7.687000	0.663880	8.040167	0.852762	7.325500	0.194739
6	presto/tpch: q07	19.773333	0.686106	19.852500	0.410984	19.650000	0.355405
7	presto/tpch: q08	21.874833	0.398706	21.915667	0.413002	22.271000	0.716041
8	presto/tpch: q09	101.802500	1.595117	97.836000	3.154636	99.833500	3.534128
9	presto/tpch: q10	19.956167	0.775944	20.273500	0.728298	19.967167	0.914357
10	presto/tpch: q11	7.661833	0.169877	7.763167	0.143535	7.797167	0.313576
11	presto/tpch: q12	15.713167	1.472041	15.261333	0.683930	14.898167	0.783574
12	presto/tpch: q13	23.827333	0.660673	23.152333	0.780833	23.551667	1.013383
13	presto/tpch: q14	10.854500	0.417564	10.773333	0.938677	10.746000	1.294539
14	presto/tpch: q15	20.177000	0.313809	20.090667	0.454621	20.340333	0.222229
15	presto/tpch: q16	5.293167	0.089047	5.702500	0.299941	5.389000	0.132773
16	presto/tpch: q17	56.988667	0.819198	56.784000	0.598591	56.996167	0.700963
17	presto/tpch: q18	72.586833	1.222914	49.366833	1.004971	51.826000	3.525330
18	presto/tpch: q19	14.667000	0.426624	14.345833	0.257419	14.076500	0.162556
19	presto/tpch: q20	20.083500	0.725055	19.457833	0.556647	19.836333	0.856648
20	presto/tpch: q21	148.094000	0.986952	144.795167	1.329706	64.695833	0.285972
21	presto/tpch: q22	5.509500	0.182144	5.436833	0.468644	5.208833	0.120583

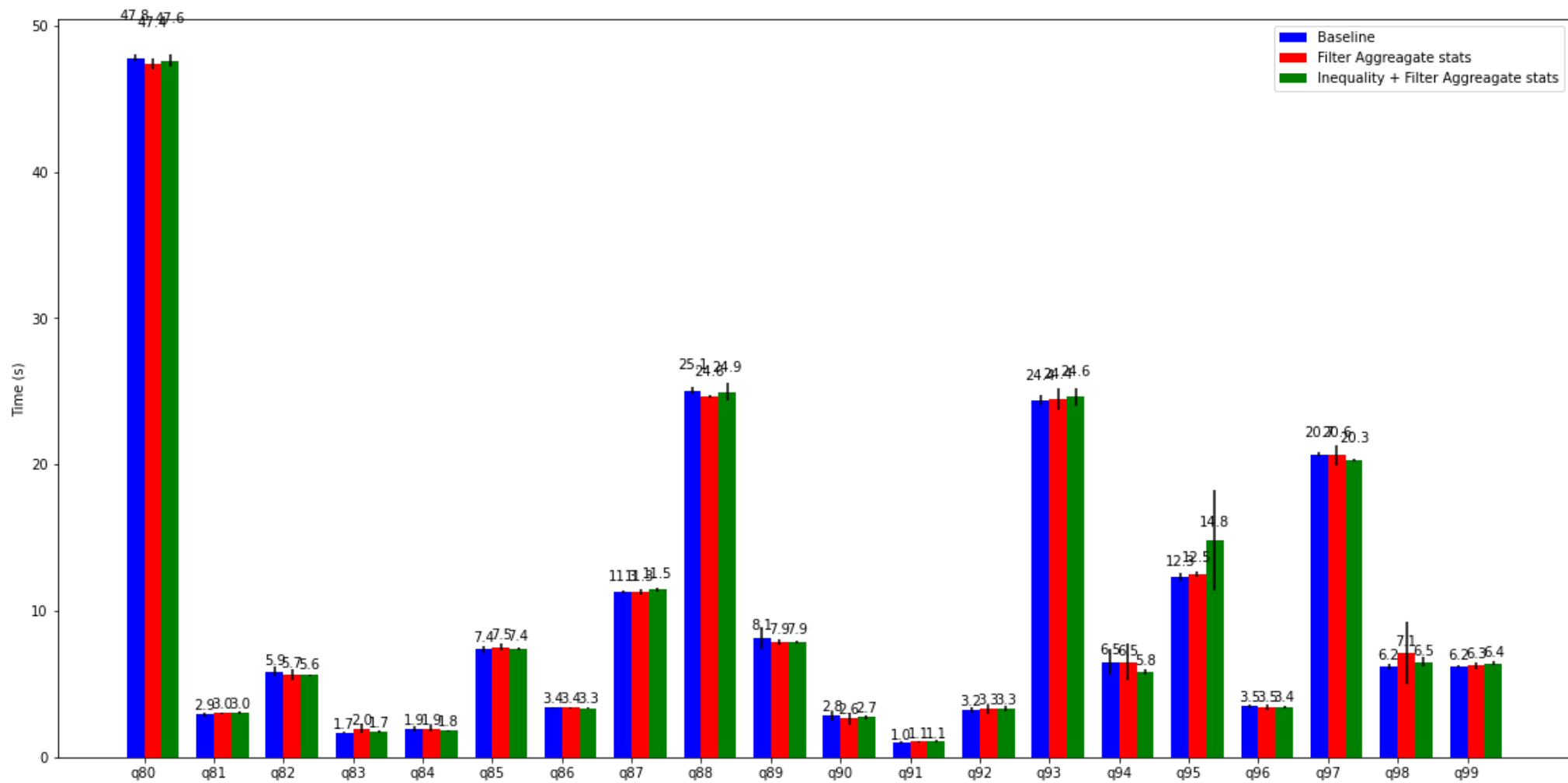
TPC-DS Comparison (DURATION)

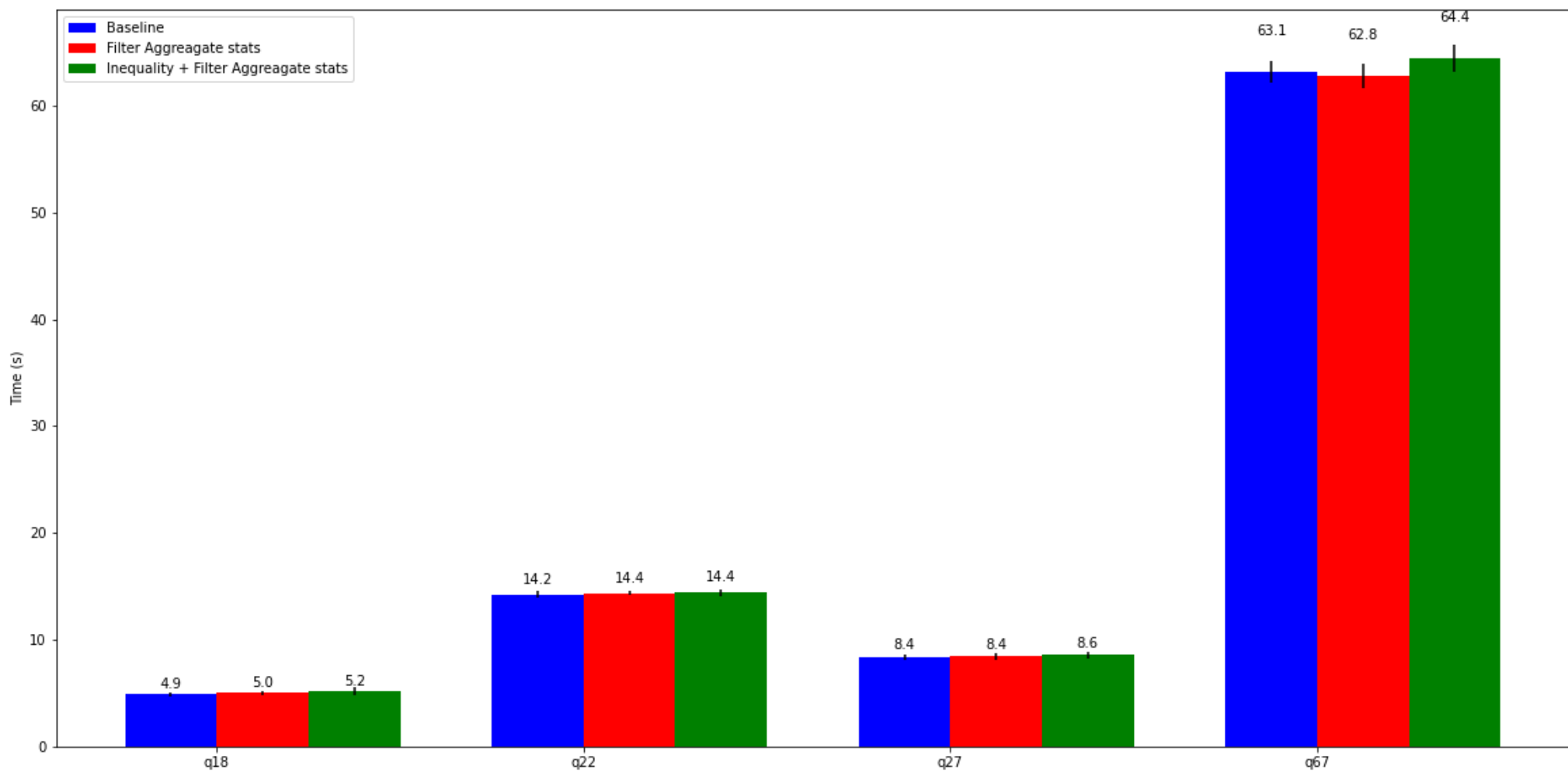












	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0	presto/tpcds: q01	3.359000	0.057334	3.329000	0.114757	3.363000	0.085744
1	presto/tpcds: q02	20.527167	0.093726	19.538833	0.453837	20.428500	0.184654
2	presto/tpcds: q03	5.509333	0.101008	5.524500	0.175639	6.384500	1.093182
3	presto/tpcds: q04	55.412167	0.319829	55.107333	0.296234	56.590000	0.242268
4	presto/tpcds: q05	25.132333	0.189780	25.205667	0.167977	25.340667	0.219001

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
5	presto/tpcds:q06	4.860500	0.257914	4.821167	0.383362	5.533000	1.023890
6	presto/tpcds:q07	8.902833	0.159547	8.959333	0.265077	9.003333	0.276050
7	presto/tpcds:q08	8.437167	0.341757	8.417500	0.363956	8.221000	0.171761
8	presto/tpcds:q09	26.144167	0.586764	26.560667	0.491738	26.499500	0.303687
9	presto/tpcds:q10	6.757667	0.368124	7.041500	0.346163	6.667167	0.143088
10	presto/tpcds:q11	31.946000	0.198989	31.748833	0.146553	32.584500	0.197222
11	presto/tpcds:q12	2.721000	0.588798	1.999000	0.068211	2.030333	0.115837
12	presto/tpcds:q13	17.001833	0.232006	16.945167	0.158007	16.827833	0.115189
13	presto/tpcds:q14	121.552833	0.554316	116.336500	0.852149	116.089167	0.750538
14	presto/tpcds:q15	2.766833	0.151908	2.576167	0.357934	2.559833	0.309743
15	presto/tpcds:q16	9.243333	0.158770	9.605833	0.660356	9.659167	0.567534
16	presto/tpcds:q17	10.836500	0.329096	10.541333	0.230591	10.577667	0.223307
17	presto/tpcds:q18	4.905667	0.188682	5.004500	0.184077	5.181500	0.402334
18	presto/tpcds:q19	6.906667	0.107619	7.706667	1.078584	7.276833	0.231812
19	presto/tpcds:q20	3.107333	0.222709	2.928500	0.187289	2.973000	0.099406
20	presto/tpcds:q21	3.238000	0.089648	3.278000	0.163560	3.269167	0.093884
21	presto/tpcds:q22	14.219000	0.290513	14.372333	0.237789	14.436000	0.312425

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
22	presto/tpcds: q23	115.924167	1.066220	117.113167	1.969254	117.801500	2.479838
23	presto/tpcds: q24	27.516333	1.070106	26.574000	0.388737	27.380667	0.497035
24	presto/tpcds: q25	10.833833	0.305386	10.898500	0.260691	11.857500	1.043454
25	presto/tpcds: q26	4.493667	0.087099	4.726667	0.422792	4.580500	0.586866
26	presto/tpcds: q27	8.380833	0.256026	8.428000	0.275001	8.550667	0.361039
27	presto/tpcds: q28	24.344500	0.138774	24.160833	0.185937	24.324500	0.214849
28	presto/tpcds: q29	11.038167	0.287165	10.744667	0.337037	11.616667	1.538552
29	presto/tpcds: q30	2.394333	0.071673	2.340833	0.083856	2.356167	0.118571
30	presto/tpcds: q31	18.273500	0.312556	17.805500	0.208070	18.273833	0.458367
31	presto/tpcds: q32	5.127667	0.277610	5.133167	0.311866	5.292833	0.114873
32	presto/tpcds: q33	9.387333	0.291968	9.155500	0.278627	9.323833	0.315718
33	presto/tpcds: q34	5.117500	0.253888	5.511333	0.418711	5.311000	0.358841
34	presto/tpcds: q35	7.448167	0.271614	7.430167	0.420957	7.539667	0.385544
35	presto/tpcds: q36	7.446333	0.194046	7.321000	0.157862	7.274167	0.201585
36	presto/tpcds: q37	4.250333	0.142681	4.149667	0.084071	4.407833	0.305862
37	presto/tpcds: q38	11.203833	0.160923	11.124000	0.189153	11.316167	0.131151
38	presto/tpcds: q39	5.158500	0.158326	5.175667	0.141537	5.069000	0.109001

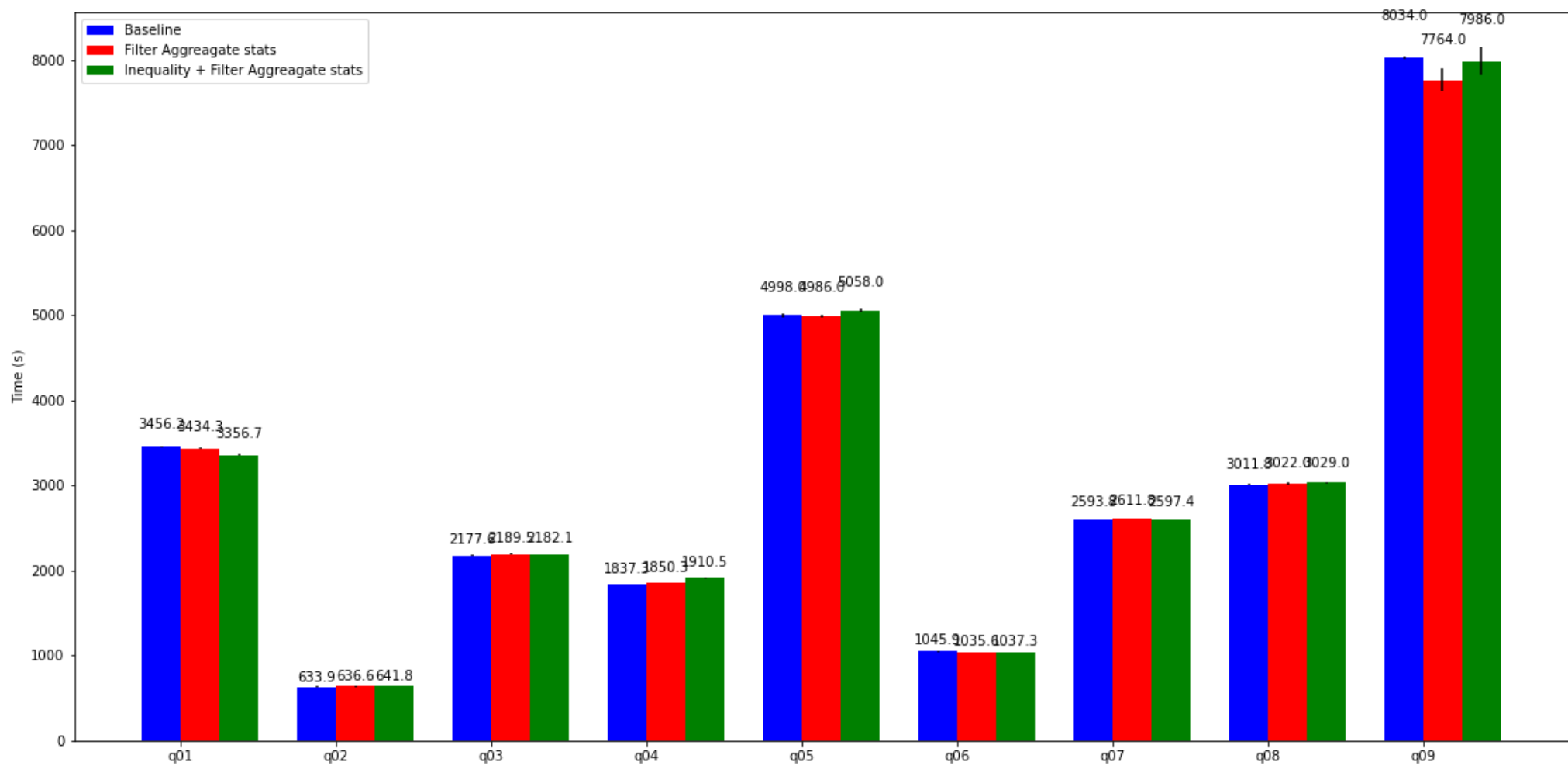
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
39	presto/tpcds: q40	8.973833	0.504230	8.768833	0.536859	8.960000	0.406553
40	presto/tpcds: q41	0.646167	0.050261	0.640667	0.030813	0.689667	0.058787
41	presto/tpcds: q42	6.307167	0.779248	5.882167	0.217437	6.007833	0.308726
42	presto/tpcds: q43	7.067000	0.228060	6.821833	0.228559	6.924833	0.112482
43	presto/tpcds: q44	13.034000	0.467280	12.920167	0.298292	12.863500	0.650862
44	presto/tpcds: q45	2.194833	0.233162	2.142833	0.062774	2.050167	0.075867
45	presto/tpcds: q46	7.295667	0.283997	7.451333	0.321386	7.459333	0.330031
46	presto/tpcds: q47	55.765500	0.136405	55.582833	0.168726	56.100667	0.224119
47	presto/tpcds: q48	14.499000	0.218154	14.549500	0.210985	14.548500	0.110838
48	presto/tpcds: q49	11.883667	0.305592	11.796333	0.226189	11.848333	0.331219
49	presto/tpcds: q50	20.349833	0.305385	20.135167	0.373427	20.229833	0.577516
50	presto/tpcds: q51	15.022000	0.484062	14.698667	0.223513	14.886833	0.287125
51	presto/tpcds: q52	5.841667	0.111285	5.899667	0.083483	5.921167	0.199278
52	presto/tpcds: q53	7.123667	0.249456	6.727333	0.290302	6.934833	0.132016
53	presto/tpcds: q54	11.921667	0.641982	12.119167	0.425455	11.967167	0.144469
54	presto/tpcds: q55	5.901333	0.224625	6.069333	0.825473	6.093500	0.152000
55	presto/tpcds: q56	9.478333	0.301077	10.016000	0.721205	9.804167	0.995655

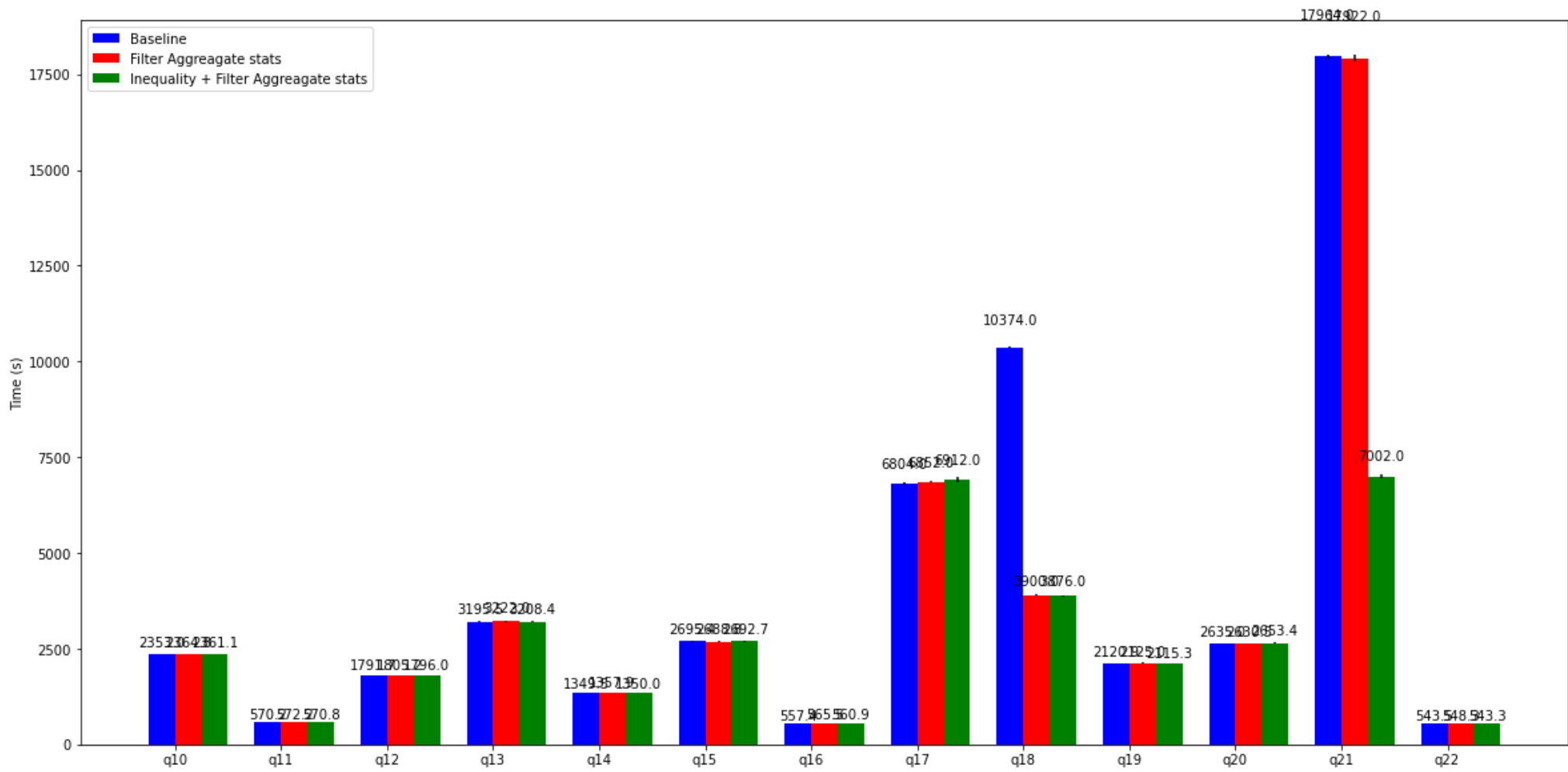
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
56	presto/tpcds: q57	23.219667	0.141286	23.461833	0.096742	23.643333	0.158486
57	presto/tpcds: q58	10.172667	0.817365	9.398167	0.373460	9.736000	1.283412
58	presto/tpcds: q59	33.444667	0.232192	32.403667	0.125933	34.640000	0.301567
59	presto/tpcds: q60	9.720833	0.244931	9.981000	0.240343	9.817333	0.657082
60	presto/tpcds: q61	12.381500	0.220349	12.634000	0.339639	12.344667	0.243412
61	presto/tpcds: q62	3.454833	0.080859	3.437833	0.110221	3.657500	0.086920
62	presto/tpcds: q63	6.724833	0.212130	6.748000	0.155322	6.703167	0.258944
63	presto/tpcds: q64	115.869333	1.290645	70.342500	0.962018	70.227667	0.223220
64	presto/tpcds: q65	19.261667	0.213834	19.247667	0.202166	19.362833	0.245120
65	presto/tpcds: q66	5.925500	0.077498	6.098500	0.265949	5.938833	0.155877
66	presto/tpcds: q67	63.145167	1.034297	62.805000	1.170632	64.446333	1.259409
67	presto/tpcds: q68	8.785667	0.150492	8.891333	0.395945	8.702333	0.041015
68	presto/tpcds: q69	7.018833	0.242903	6.931333	0.274470	6.705333	0.231168
69	presto/tpcds: q70	15.899000	0.447832	15.849667	0.299075	16.597500	1.390036
70	presto/tpcds: q71	11.642167	0.318538	11.688667	0.805670	11.293167	0.339723
71	presto/tpcds: q72	79.067167	6.369627	76.815500	2.675599	22.148000	1.309768
72	presto/tpcds: q73	4.686833	0.309058	4.874167	0.496140	4.868000	0.141691

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
73	presto/tpcds: q74	21.865333	0.202592	21.538000	0.215280	21.626333	0.207220
74	presto/tpcds: q75	36.499667	0.493384	35.705500	2.266122	35.949667	0.348536
75	presto/tpcds: q76	8.265167	0.370333	8.564333	0.516728	8.388167	0.208459
76	presto/tpcds: q77	11.044833	0.119892	11.138667	0.490761	11.210667	0.257856
77	presto/tpcds: q78	61.973000	0.612261	61.968167	0.816820	61.896000	0.324078
78	presto/tpcds: q79	8.105000	0.152114	8.270500	0.348674	8.146333	0.148135
79	presto/tpcds: q80	47.776167	0.240238	47.376333	0.387821	47.590333	0.410682
80	presto/tpcds: q81	2.935167	0.125249	3.010500	0.047442	3.032667	0.118402
81	presto/tpcds: q82	5.867667	0.330541	5.658167	0.396324	5.599833	0.060493
82	presto/tpcds: q83	1.688833	0.054938	1.963000	0.341431	1.741000	0.072391
83	presto/tpcds: q84	1.944500	0.197242	1.947167	0.233919	1.822833	0.055683
84	presto/tpcds: q85	7.375167	0.210836	7.508500	0.222609	7.393333	0.121002
85	presto/tpcds: q86	3.388833	0.053327	3.397833	0.060374	3.335000	0.036011
86	presto/tpcds: q87	11.277333	0.106605	11.317833	0.169436	11.461667	0.126896
87	presto/tpcds: q88	25.050000	0.253034	24.623333	0.090438	24.935667	0.599504
88	presto/tpcds: q89	8.136167	0.751509	7.863667	0.176511	7.883167	0.098392
89	presto/tpcds: q90	2.822167	0.292533	2.644500	0.394942	2.731000	0.168629

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
90	presto/tpcds: q91	0.987333	0.074618	1.051167	0.066758	1.065333	0.087184
91	presto/tpcds: q92	3.216667	0.175721	3.280500	0.318156	3.319167	0.167526
92	presto/tpcds: q93	24.408833	0.351481	24.439500	0.728644	24.620333	0.594583
93	presto/tpcds: q94	6.515667	0.839381	6.494667	1.234725	5.799000	0.175869
94	presto/tpcds: q95	12.323833	0.296175	12.518333	0.186086	14.805167	3.457344
95	presto/tpcds: q96	3.479667	0.137950	3.455167	0.182164	3.430167	0.121338
96	presto/tpcds: q97	20.680667	0.137856	20.637000	0.721321	20.285167	0.130260
97	presto/tpcds: q98	6.204833	0.208546	7.115333	2.136352	6.493167	0.335663
98	presto/tpcds: q99	6.176500	0.084149	6.267333	0.219557	6.397833	0.127031

TPC-H Comparison (CPU)

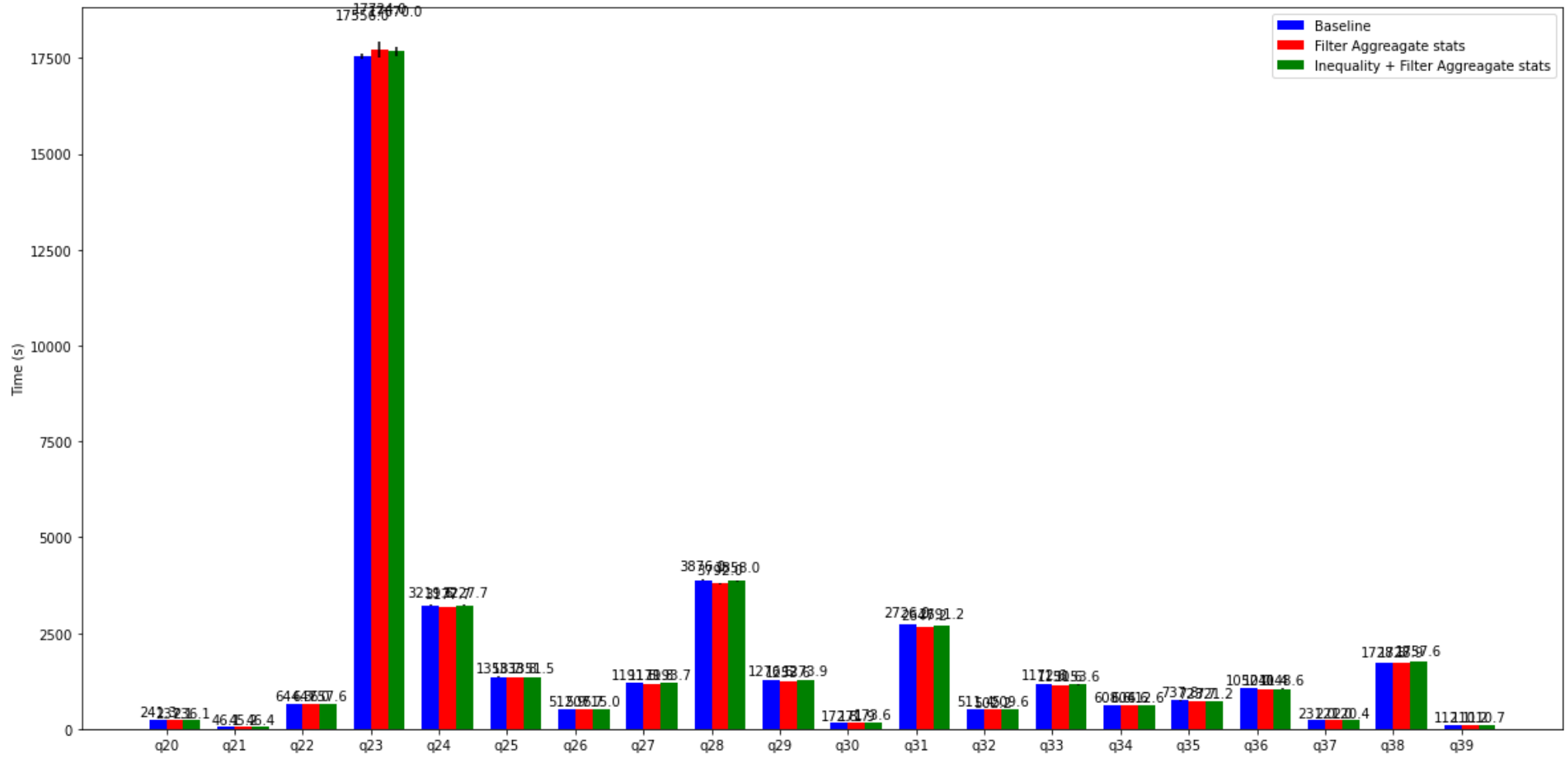


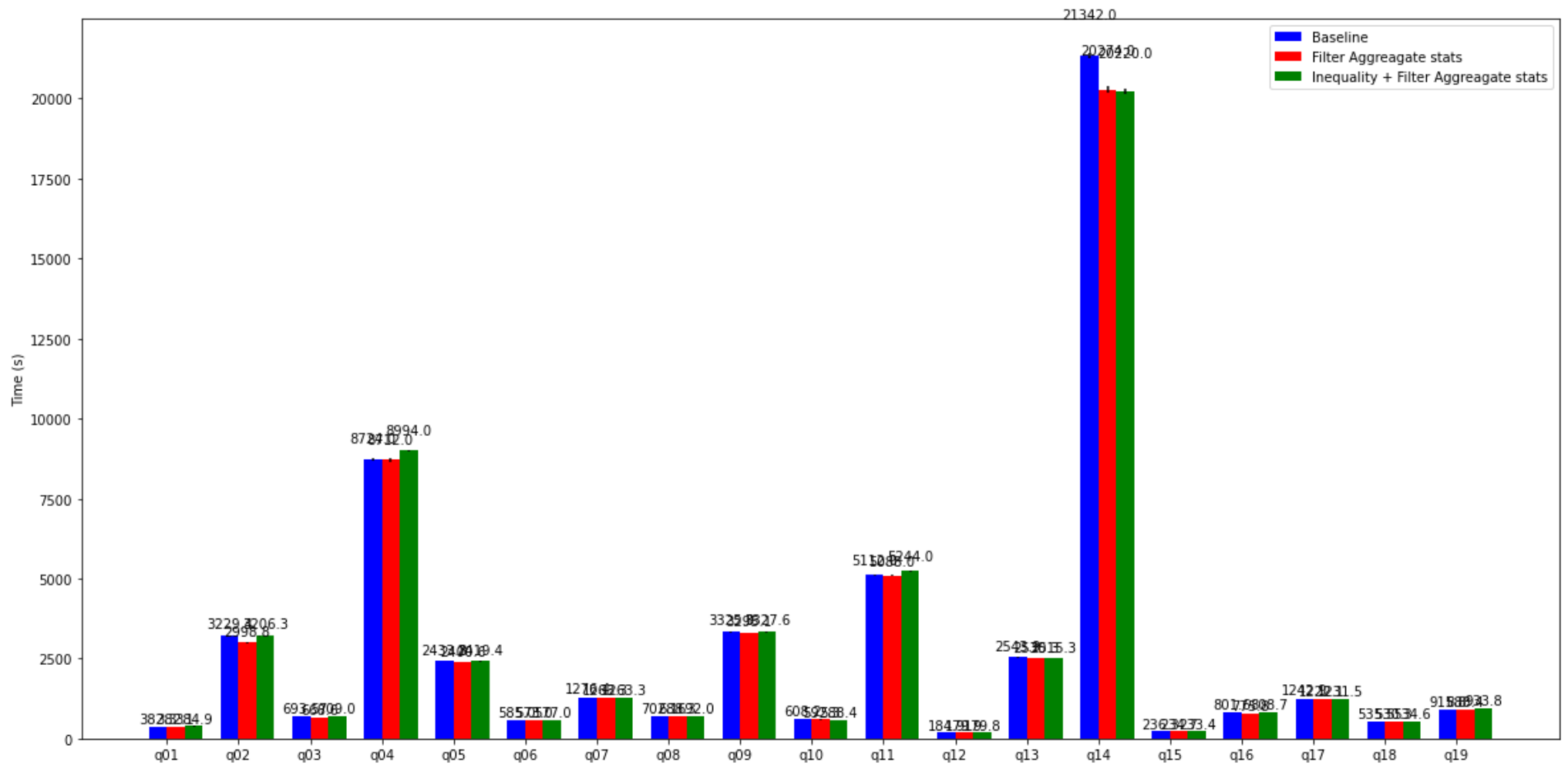


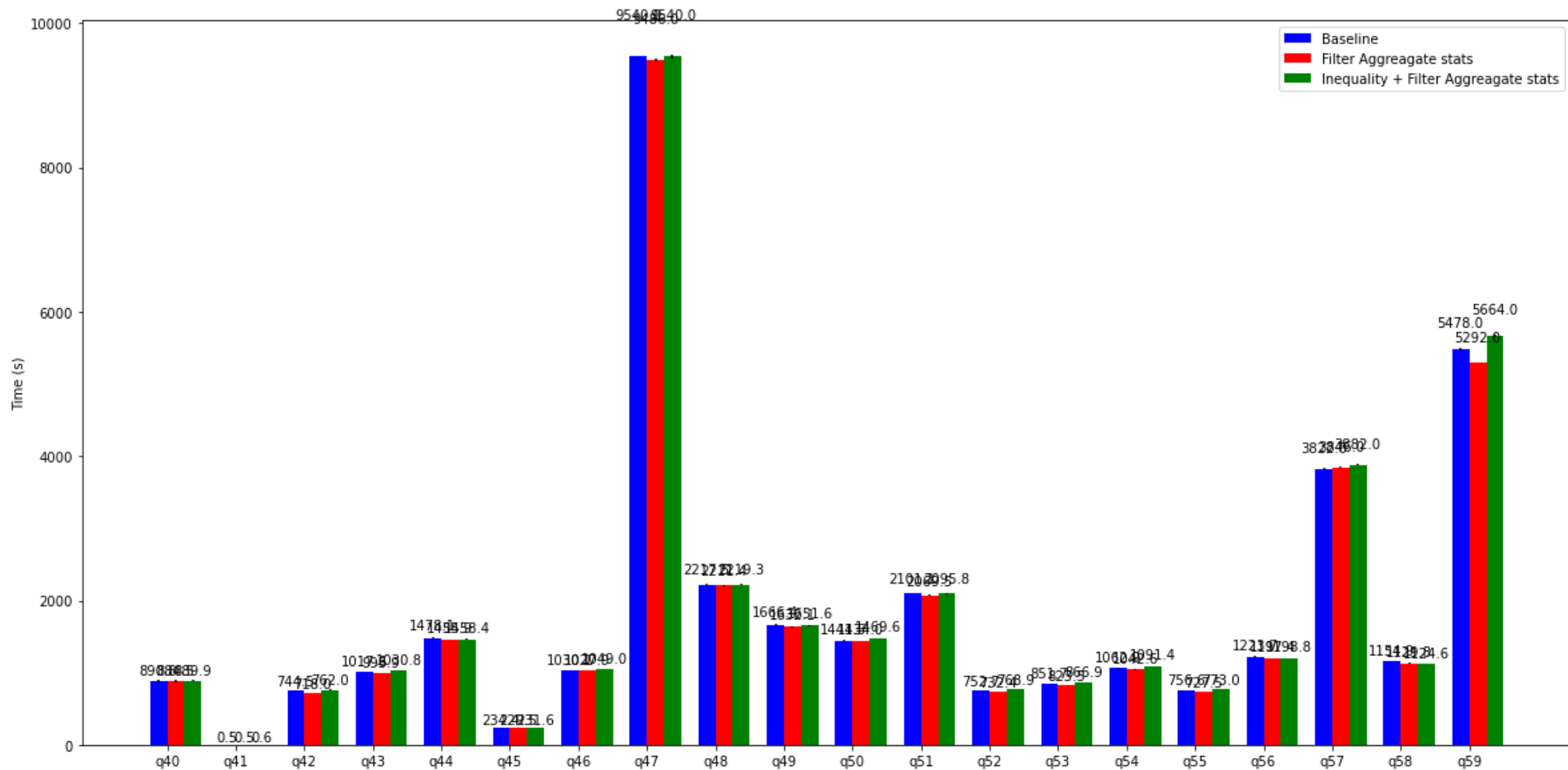
query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0 presto/tpch: q01	3456.2	6.688498	3434.3	5.263839	3356.7	8.651243
1 presto/tpch: q02	633.9	2.034699	636.6	2.308246	641.8	4.898979
2 presto/tpch: q03	2177.6	0.903327	2189.5	4.669475	2182.1	2.949576
3 presto/tpch: q04	1837.3	4.909990	1850.3	1.489966	1910.5	3.251461
4 presto/tpch: q05	4998.0	27.099815	4986.0	19.718012	5058.0	19.718012

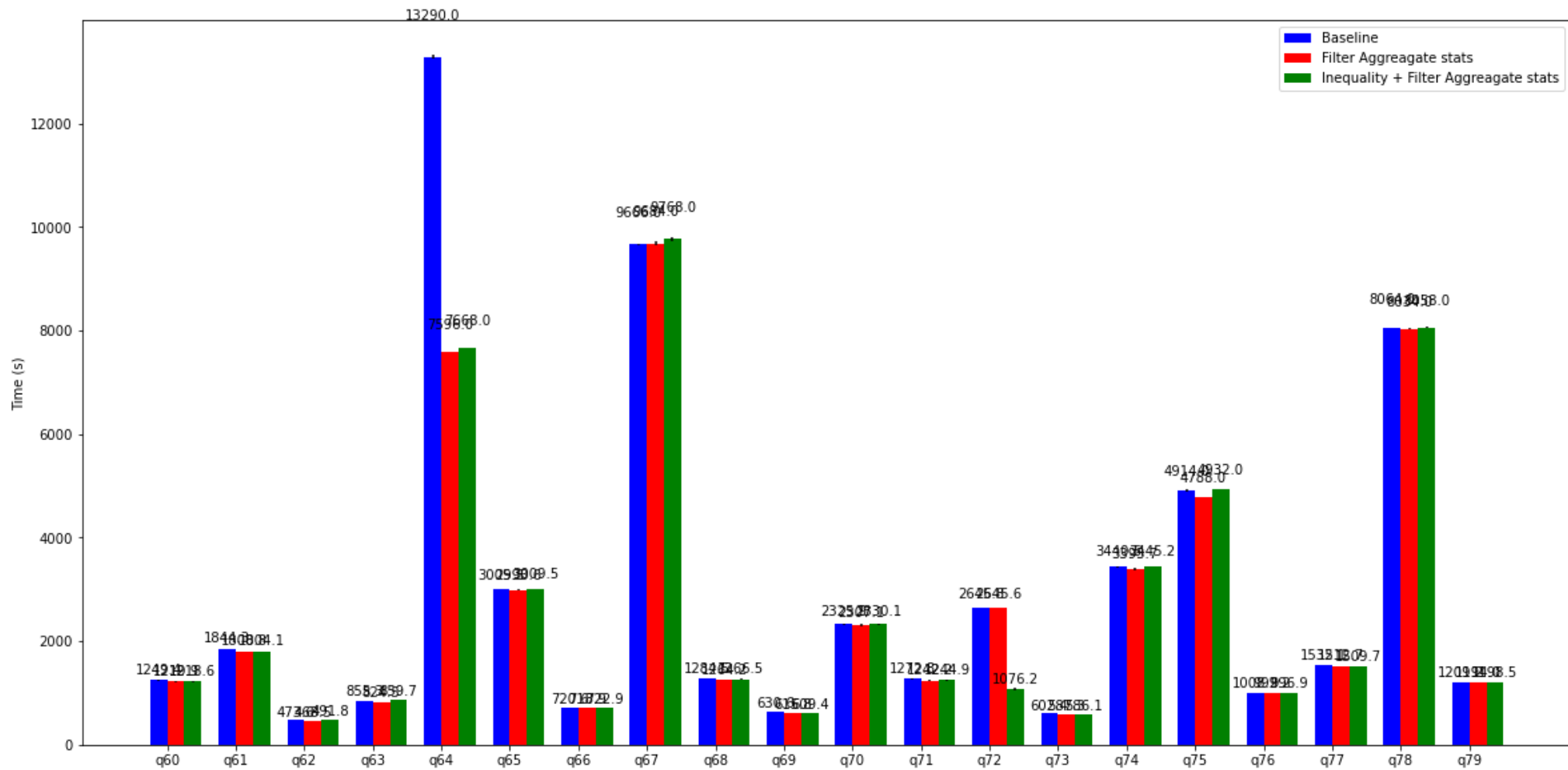
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
5	presto/tpch:q06	1045.9	5.582473	1035.6	2.573713	1037.3	3.115766
6	presto/tpch:q07	2593.8	4.724405	2611.8	6.189023	2597.4	5.564171
7	presto/tpch:q08	3011.8	4.869497	3022.0	10.582249	3029.0	13.627619
8	presto/tpch:q09	8034.0	14.696938	7764.0	132.109046	7986.0	167.957137
9	presto/tpch:q10	2353.0	9.415732	2364.8	8.002000	2361.1	8.829723
10	presto/tpch:q11	570.2	2.328948	572.2	2.955673	570.8	2.234278
11	presto/tpch:q12	1791.7	2.160555	1805.2	5.128743	1796.0	6.277579
12	presto/tpch:q13	3195.5	16.070221	3222.0	17.983993	3208.4	20.057118
13	presto/tpch:q14	1349.5	2.126970	1357.9	5.222643	1350.0	5.792409
14	presto/tpch:q15	2695.4	11.907645	2688.8	7.490794	2692.7	8.805226
15	presto/tpch:q16	557.4	1.138420	565.5	0.985901	560.9	1.489966
16	presto/tpch:q17	6804.0	39.436024	6852.0	18.590320	6912.0	60.239522
17	presto/tpch:q18	10374.0	27.099815	3900.0	18.590320	3876.0	18.590320
18	presto/tpch:q19	2120.9	8.369229	2125.0	9.567445	2115.3	7.829943
19	presto/tpch:q20	2635.0	5.494725	2630.5	1.950385	2653.4	8.807270
20	presto/tpch:q21	17964.0	45.536798	17922.0	83.397842	7002.0	37.757119
21	presto/tpch:q22	543.5	1.672124	548.3	1.440833	543.3	1.122497

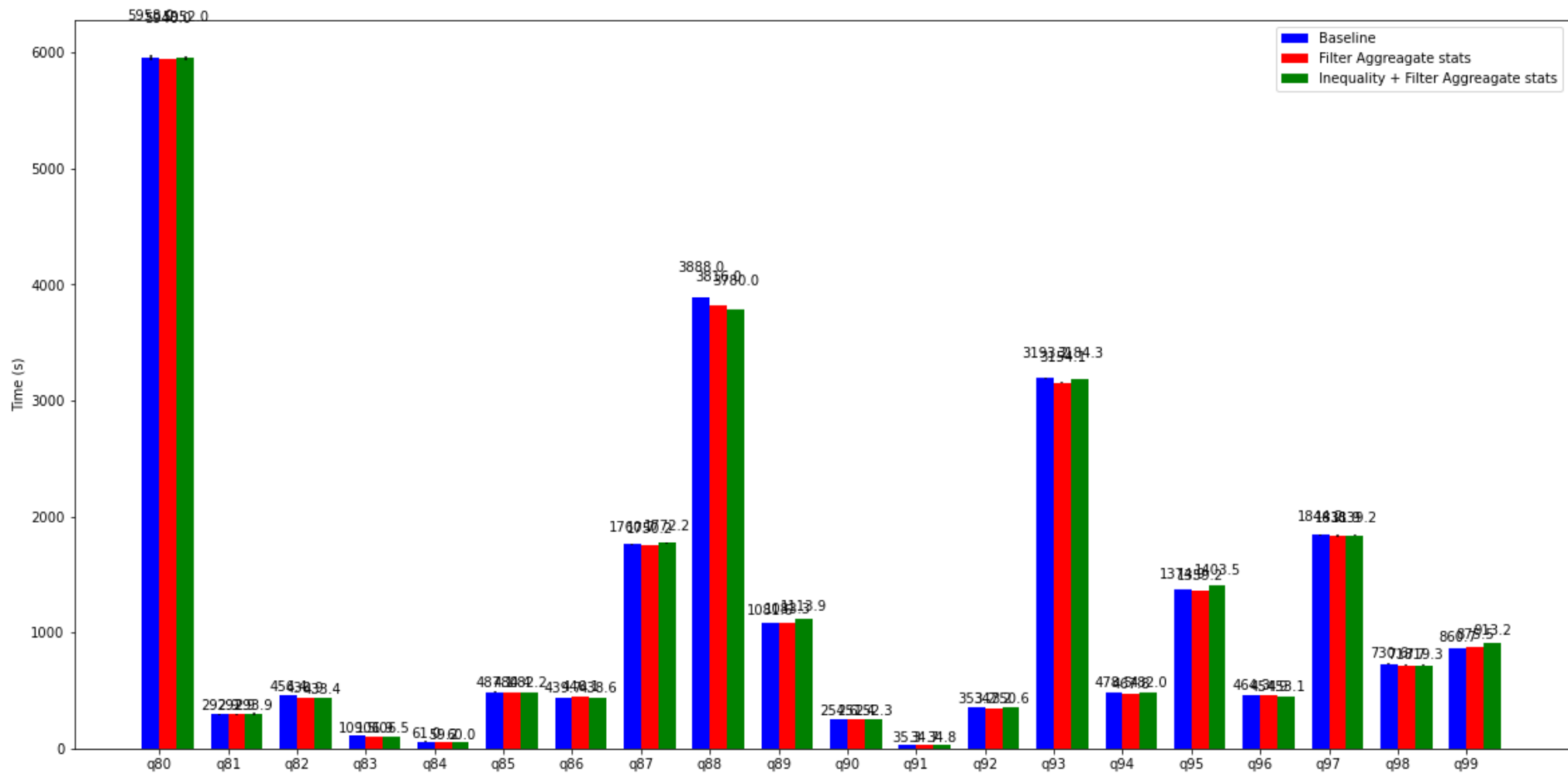
TPC-DS Comparison (CPU)

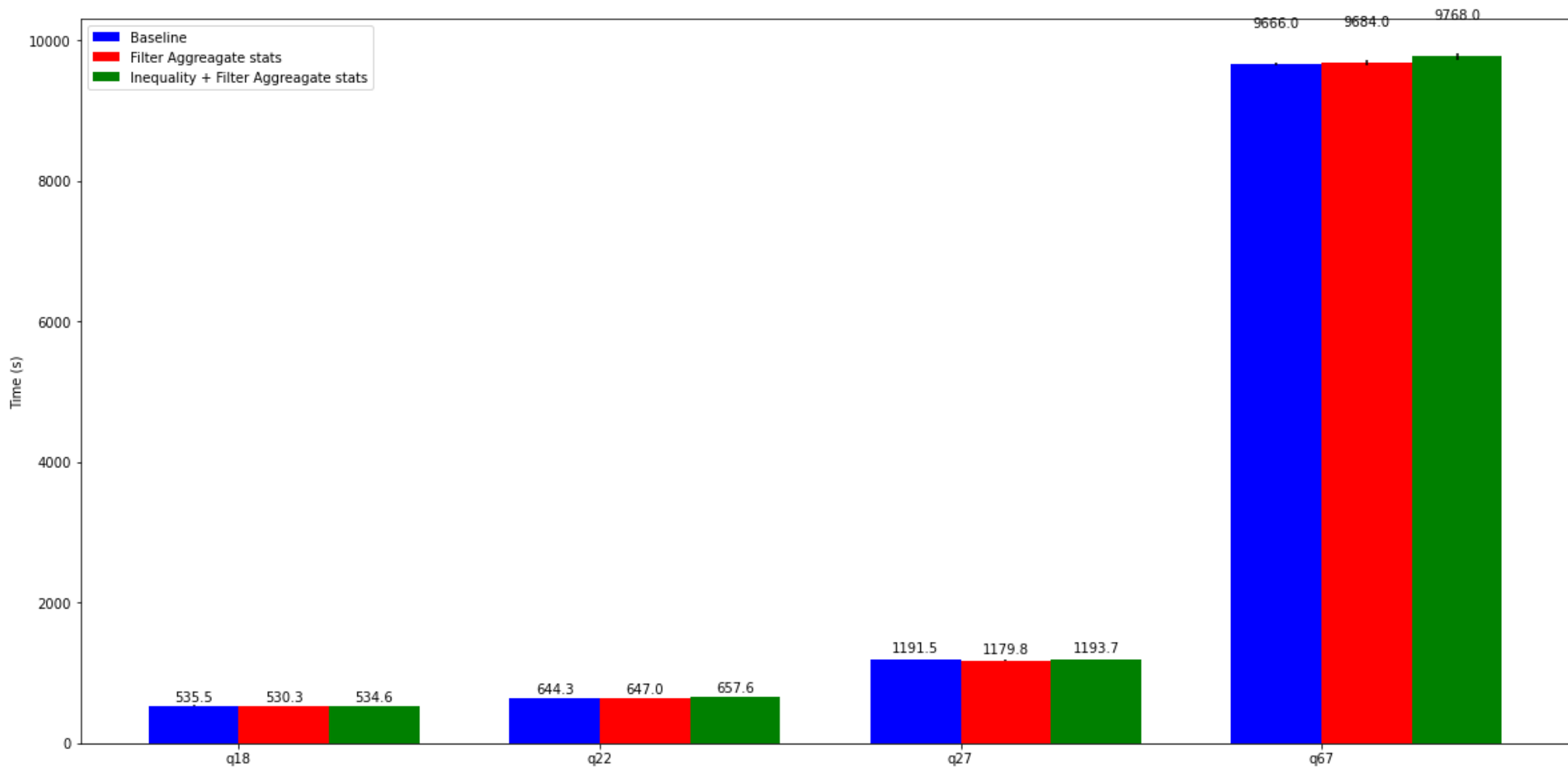












	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0	presto/tpcds: q01	382.300000	0.961249	382.100000	2.058155	384.900000	1.122497
1	presto/tpcds: q02	3229.400000	2.266274	2998.800000	7.896328	3206.300000	2.442130
2	presto/tpcds: q03	693.500000	0.961249	668.600000	0.979796	709.000000	1.239355
3	presto/tpcds: q04	8724.000000	43.598165	8712.000000	60.239522	8994.000000	14.696938
4	presto/tpcds: q05	2433.800000	4.719322	2400.600000	3.197499	2419.400000	10.179980

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
5	presto/tpcds:q06	585.000000	0.848528	573.000000	0.657267	577.000000	1.682855
6	presto/tpcds:q07	1276.400000	2.066882	1263.300000	1.184905	1263.300000	2.981946
7	presto/tpcds:q08	702.100000	1.164474	688.300000	0.244949	692.000000	0.619677
8	presto/tpcds:q09	3325.000000	9.797959	3295.100000	13.757761	3327.600000	12.325583
9	presto/tpcds:q10	608.200000	0.979796	592.300000	0.701427	588.400000	0.619677
10	presto/tpcds:q11	5112.000000	22.768399	5088.000000	18.590320	5244.000000	18.590320
11	presto/tpcds:q12	184.900000	0.244949	179.900000	0.244949	179.800000	0.309839
12	presto/tpcds:q13	2543.900000	8.894718	2530.300000	6.076512	2515.300000	4.215685
13	presto/tpcds:q14	21342.000000	80.229670	20274.000000	97.709774	20220.000000	74.361280
14	presto/tpcds:q15	236.300000	0.244949	234.700000	0.451664	233.400000	0.379473
15	presto/tpcds:q16	801.600000	1.419859	775.800000	0.848528	808.700000	1.337161
16	presto/tpcds:q17	1242.900000	4.628175	1222.100000	1.440833	1231.500000	3.100323
17	presto/tpcds:q18	535.500000	2.034699	530.300000	1.033441	534.600000	1.697056
18	presto/tpcds:q19	915.800000	4.009988	888.400000	4.468557	933.800000	6.720714
19	presto/tpcds:q20	241.300000	0.244949	237.100000	0.589915	236.100000	0.501996
20	presto/tpcds:q21	46.140000	0.163829	45.215000	0.193365	46.425000	0.209069
21	presto/tpcds:q22	644.300000	0.701427	647.000000	2.066882	657.600000	1.697056

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
22	presto/tpcds: q23	17556.000000	63.042843	17724.000000	199.358973	17670.000000	131.617628
23	presto/tpcds: q24	3219.600000	15.050316	3177.700000	6.205481	3227.700000	19.086225
24	presto/tpcds: q25	1358.700000	8.414987	1333.800000	2.517141	1351.500000	6.335614
25	presto/tpcds: q26	512.900000	1.537530	507.700000	2.442130	515.000000	0.819756
26	presto/tpcds: q27	1191.500000	2.875413	1179.800000	1.959592	1193.700000	2.538503
27	presto/tpcds: q28	3876.000000	18.590320	3792.000000	18.590320	3858.000000	14.696938
28	presto/tpcds: q29	1276.600000	5.675209	1253.600000	2.979933	1273.900000	5.595355
29	presto/tpcds: q30	172.800000	7.189993	171.900000	8.038657	173.600000	7.055211
30	presto/tpcds: q31	2726.000000	6.677724	2647.200000	4.585194	2691.200000	3.937512
31	presto/tpcds: q32	511.400000	0.726636	502.200000	1.138420	509.600000	0.979796
32	presto/tpcds: q33	1172.600000	2.135416	1150.600000	1.239355	1153.600000	1.117139
33	presto/tpcds: q34	608.600000	0.619677	604.600000	0.726636	612.600000	0.758947
34	presto/tpcds: q35	737.800000	1.639512	723.700000	4.041287	721.200000	1.819890
35	presto/tpcds: q36	1052.000000	1.549193	1041.400000	0.726636	1048.600000	1.501999
36	presto/tpcds: q37	231.000000	0.000000	221.000000	0.309839	220.400000	0.309839
37	presto/tpcds: q38	1728.500000	2.747362	1728.900000	6.869934	1757.600000	6.590903
38	presto/tpcds: q39	112.100000	0.701427	110.200000	0.489898	110.700000	0.328634

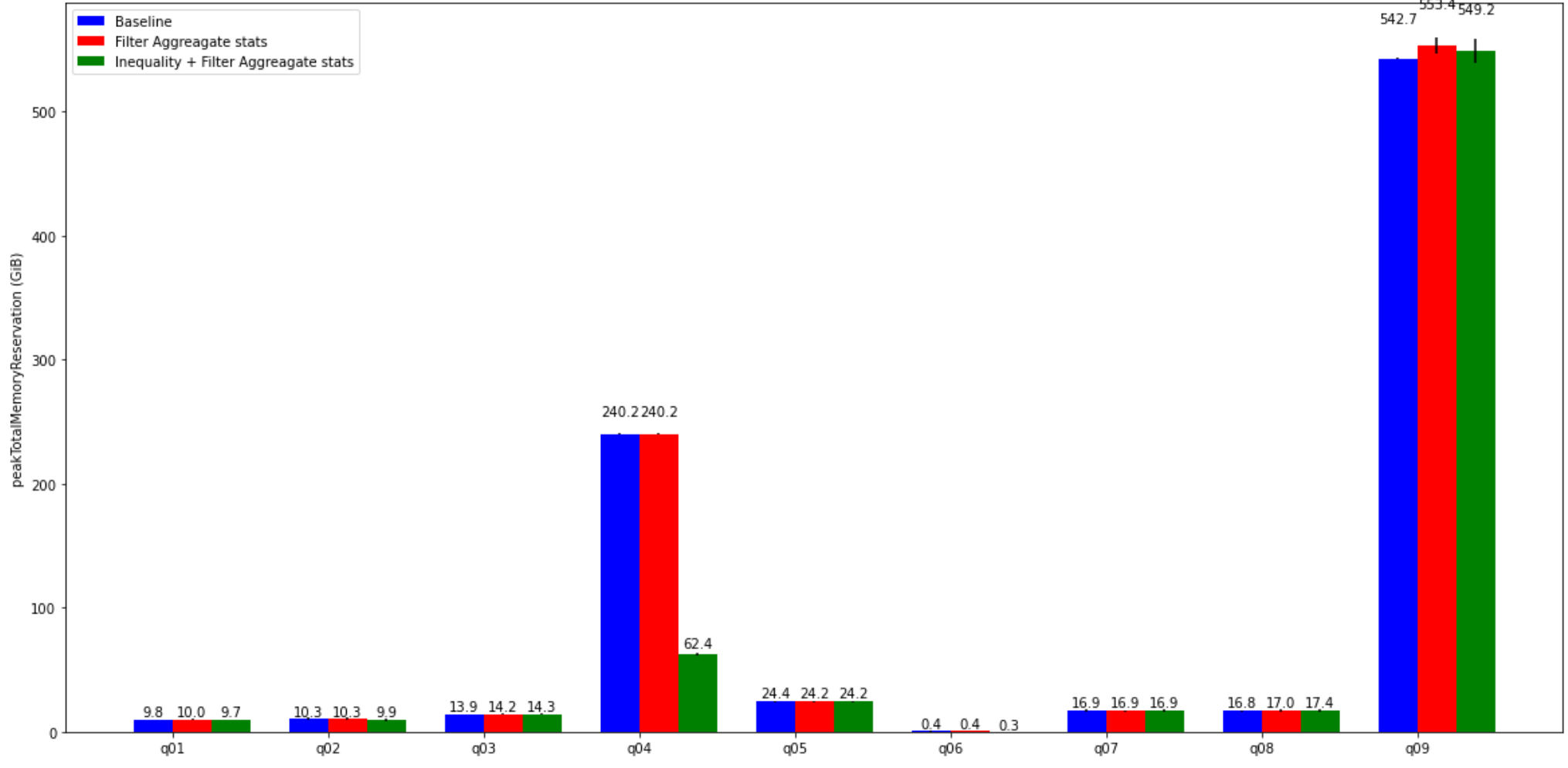
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
39	presto/tpcds:q40	890.800000	18.280481	884.500000	20.865570	889.900000	9.023303
40	presto/tpcds:q41	0.533000	0.034595	0.549500	0.020443	0.557167	0.015817
41	presto/tpcds:q42	744.500000	0.701427	718.000000	0.903327	762.000000	1.934942
42	presto/tpcds:q43	1017.600000	1.200000	993.900000	1.354991	1030.800000	1.200000
43	presto/tpcds:q44	1478.100000	7.975713	1455.900000	5.936666	1458.400000	7.865876
44	presto/tpcds:q45	234.400000	0.726636	229.500000	0.629285	231.600000	0.536656
45	presto/tpcds:q46	1030.100000	2.667583	1027.900000	2.226208	1049.000000	1.402854
46	presto/tpcds:q47	9540.000000	0.000000	9486.000000	19.718012	9540.000000	22.768399
47	presto/tpcds:q48	2217.500000	4.776191	2211.400000	8.749857	2219.300000	2.925064
48	presto/tpcds:q49	1666.400000	2.101428	1632.100000	3.648013	1651.600000	6.993711
49	presto/tpcds:q50	1441.500000	7.718808	1434.000000	3.943602	1469.600000	2.674322
50	presto/tpcds:q51	2101.100000	6.918670	2069.500000	9.818146	2095.800000	12.885341
51	presto/tpcds:q52	752.700000	2.594610	732.400000	2.647263	768.900000	1.300769
52	presto/tpcds:q53	851.700000	0.501996	823.500000	2.481129	866.900000	1.583667
53	presto/tpcds:q54	1062.900000	6.162792	1042.600000	3.919184	1091.400000	1.368211
54	presto/tpcds:q55	756.600000	0.536656	727.500000	1.407125	773.000000	0.619677
55	presto/tpcds:q56	1223.700000	6.068608	1197.400000	7.461903	1198.800000	2.914790

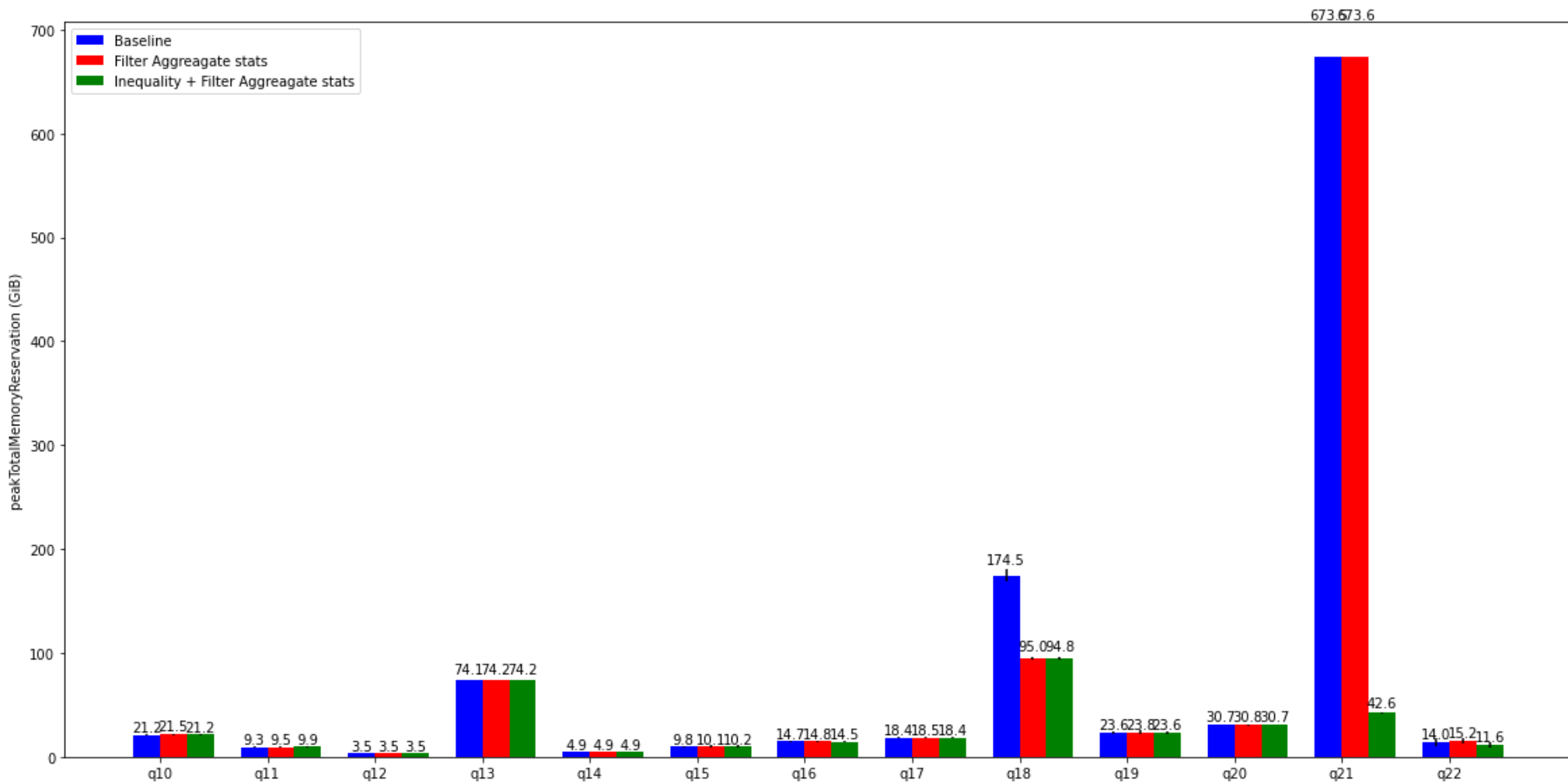
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
56	presto/tpcds:q57	3822.000000	14.696938	3846.000000	14.696938	3882.000000	14.696938
57	presto/tpcds:q58	1154.900000	3.628223	1129.800000	5.433231	1124.600000	4.532549
58	presto/tpcds:q59	5478.000000	14.696938	5292.000000	0.000000	5664.000000	18.590320
59	presto/tpcds:q60	1249.400000	7.633610	1219.900000	10.450455	1218.600000	3.961818
60	presto/tpcds:q61	1844.300000	5.809991	1800.800000	6.067619	1804.100000	1.337161
61	presto/tpcds:q62	473.600000	0.619677	468.500000	0.701427	491.800000	0.489898
62	presto/tpcds:q63	855.300000	0.827043	824.500000	0.883176	859.700000	1.033441
63	presto/tpcds:q64	13290.000000	42.085627	7596.000000	0.000000	7668.000000	0.000000
64	presto/tpcds:q65	3005.300000	3.547957	2993.600000	6.634456	3009.500000	9.978176
65	presto/tpcds:q66	720.600000	4.392721	718.900000	4.164133	722.900000	3.045653
66	presto/tpcds:q67	9666.000000	19.718012	9684.000000	32.199379	9768.000000	43.598165
67	presto/tpcds:q68	1284.500000	3.069202	1264.200000	1.003992	1266.500000	3.547957
68	presto/tpcds:q69	630.600000	1.258571	615.800000	1.350555	609.400000	0.979796
69	presto/tpcds:q70	2325.900000	24.641672	2307.100000	22.595132	2330.100000	13.575124
70	presto/tpcds:q71	1272.800000	5.388877	1242.200000	4.304416	1244.900000	3.360357
71	presto/tpcds:q72	2645.800000	10.073331	2645.600000	8.608833	1076.200000	22.611855
72	presto/tpcds:q73	602.400000	1.200000	587.300000	1.583667	586.100000	0.589915

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
73	presto/tpcds:q74	3440.500000	11.978481	3393.700000	13.742052	3445.200000	12.237647
74	presto/tpcds:q75	4914.000000	19.718012	4788.000000	0.000000	4932.000000	0.000000
75	presto/tpcds:q76	1008.200000	3.429286	999.200000	7.216647	996.900000	4.082646
76	presto/tpcds:q77	1532.100000	1.407125	1512.700000	2.022869	1509.700000	6.286175
77	presto/tpcds:q78	8064.000000	0.000000	8034.000000	14.696938	8058.000000	14.696938
78	presto/tpcds:q79	1209.200000	0.726636	1194.000000	1.073313	1198.500000	0.629285
79	presto/tpcds:q80	5958.000000	19.718012	5940.000000	0.000000	5952.000000	18.590320
80	presto/tpcds:q81	292.900000	9.047210	292.900000	9.640539	293.900000	9.883926
81	presto/tpcds:q82	456.400000	1.117139	436.900000	0.883176	433.400000	0.903327
82	presto/tpcds:q83	109.500000	0.328634	106.900000	0.451664	106.500000	0.328634
83	presto/tpcds:q84	61.000000	0.309839	59.226667	0.134561	60.006667	0.323646
84	presto/tpcds:q85	487.100000	4.198571	480.400000	3.408225	482.200000	2.619924
85	presto/tpcds:q86	439.700000	1.986957	446.100000	1.407125	438.600000	1.200000
86	presto/tpcds:q87	1760.700000	6.558963	1750.200000	1.819890	1772.200000	3.973915
87	presto/tpcds:q88	3888.000000	0.000000	3816.000000	0.000000	3780.000000	0.000000
88	presto/tpcds:q89	1081.600000	1.453272	1083.300000	1.122497	1113.900000	1.056409
89	presto/tpcds:q90	254.600000	0.489898	251.400000	0.758947	252.300000	0.501996

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
90	presto/tpcds: q91	35.251667	0.487747	34.745000	0.257274	34.833333	0.397425
91	presto/tpcds: q92	353.200000	0.726636	347.200000	1.179830	350.600000	0.726636
92	presto/tpcds: q93	3193.200000	5.841917	3154.100000	7.143948	3184.300000	3.969383
93	presto/tpcds: q94	478.500000	0.629285	467.800000	1.117139	482.000000	1.453272
94	presto/tpcds: q95	1374.900000	2.171635	1359.200000	1.806654	1403.500000	1.164474
95	presto/tpcds: q96	464.300000	0.701427	454.900000	1.033441	453.100000	0.451664
96	presto/tpcds: q97	1844.200000	5.402222	1831.900000	8.975299	1839.200000	9.041239
97	presto/tpcds: q98	730.600000	0.979796	718.700000	1.913113	719.300000	2.500400
98	presto/tpcds: q99	860.700000	0.909945	875.500000	1.756132	913.200000	1.200000

TPC-H Comparison (Peak memory)

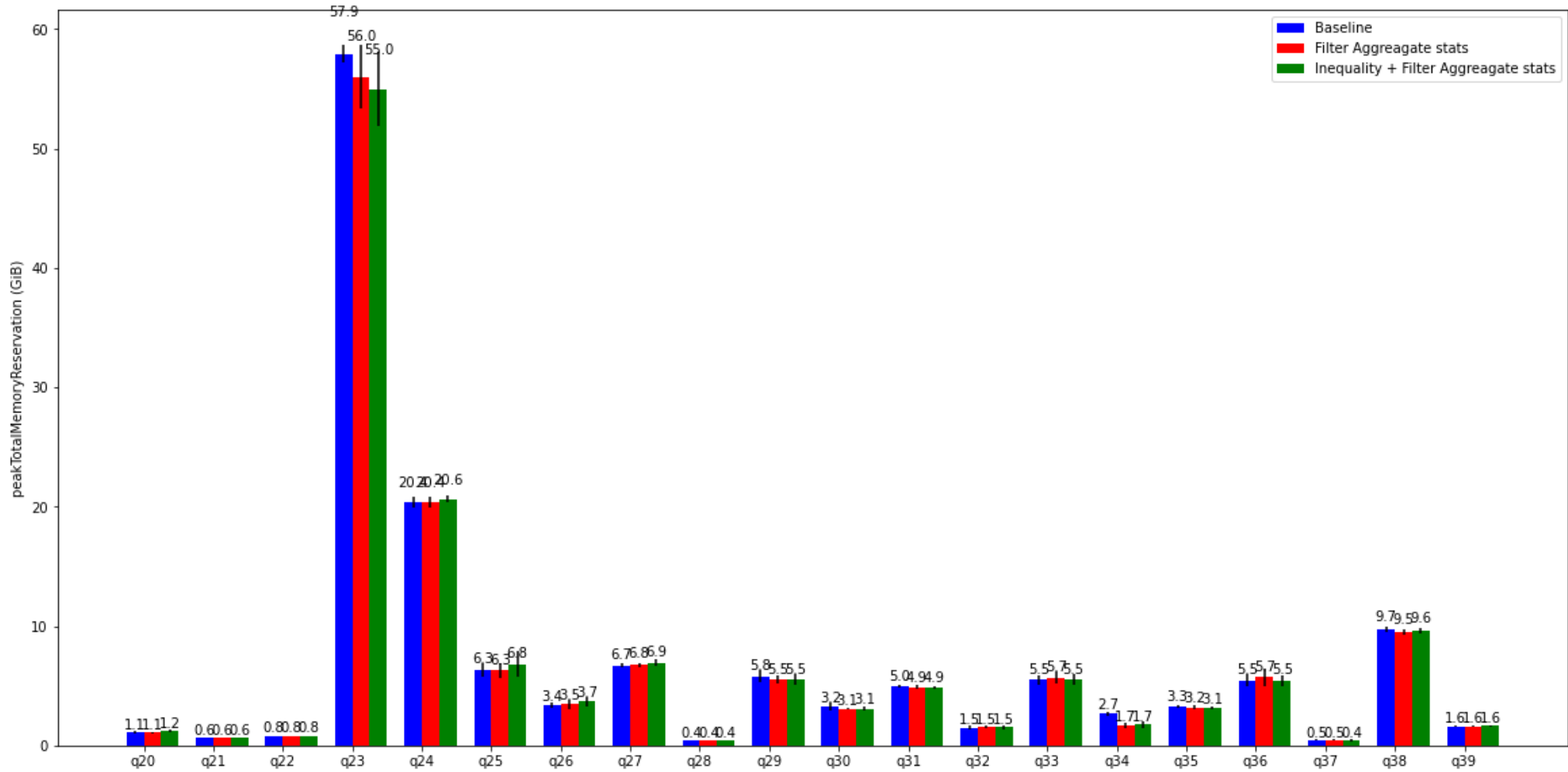


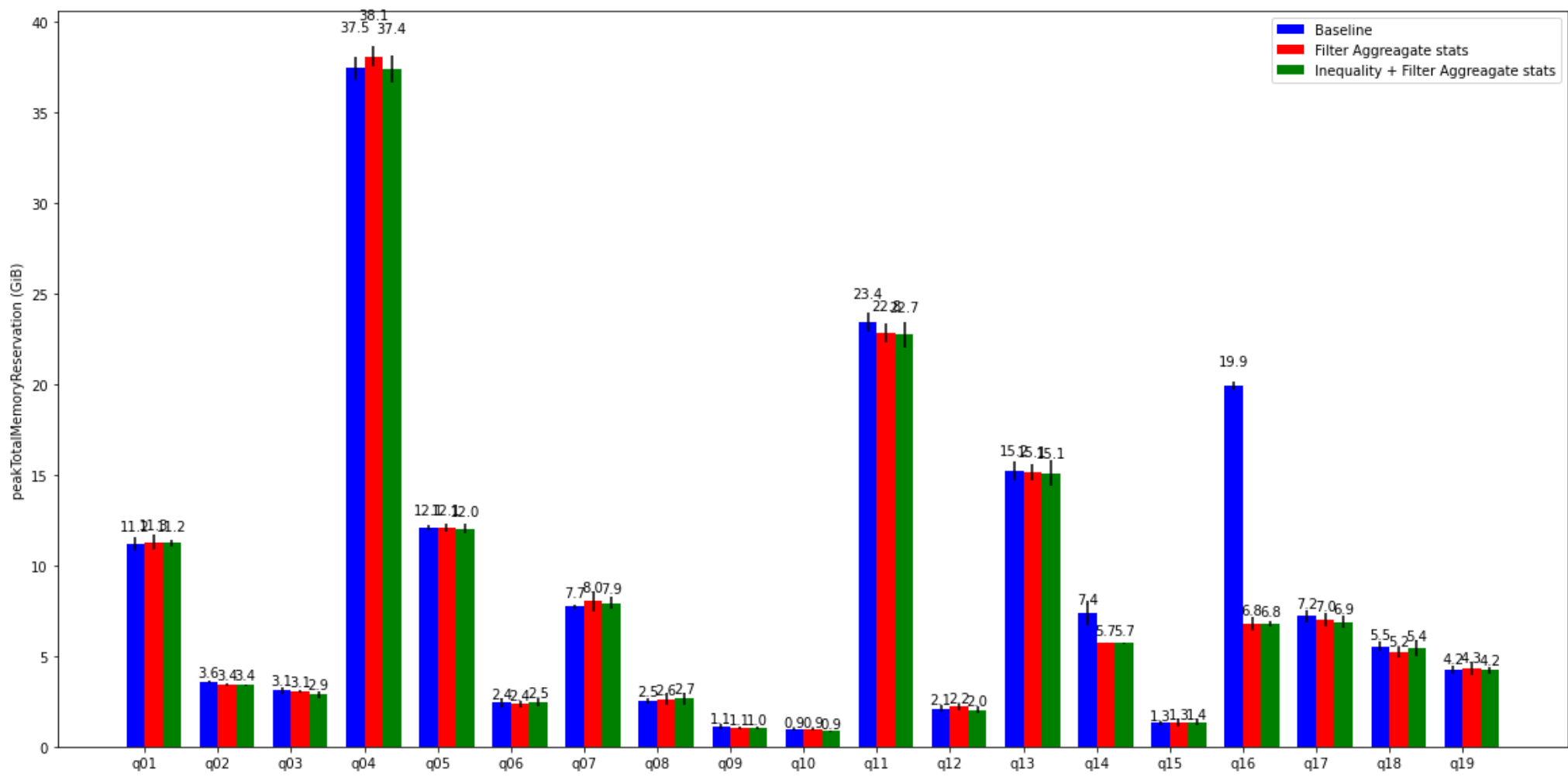


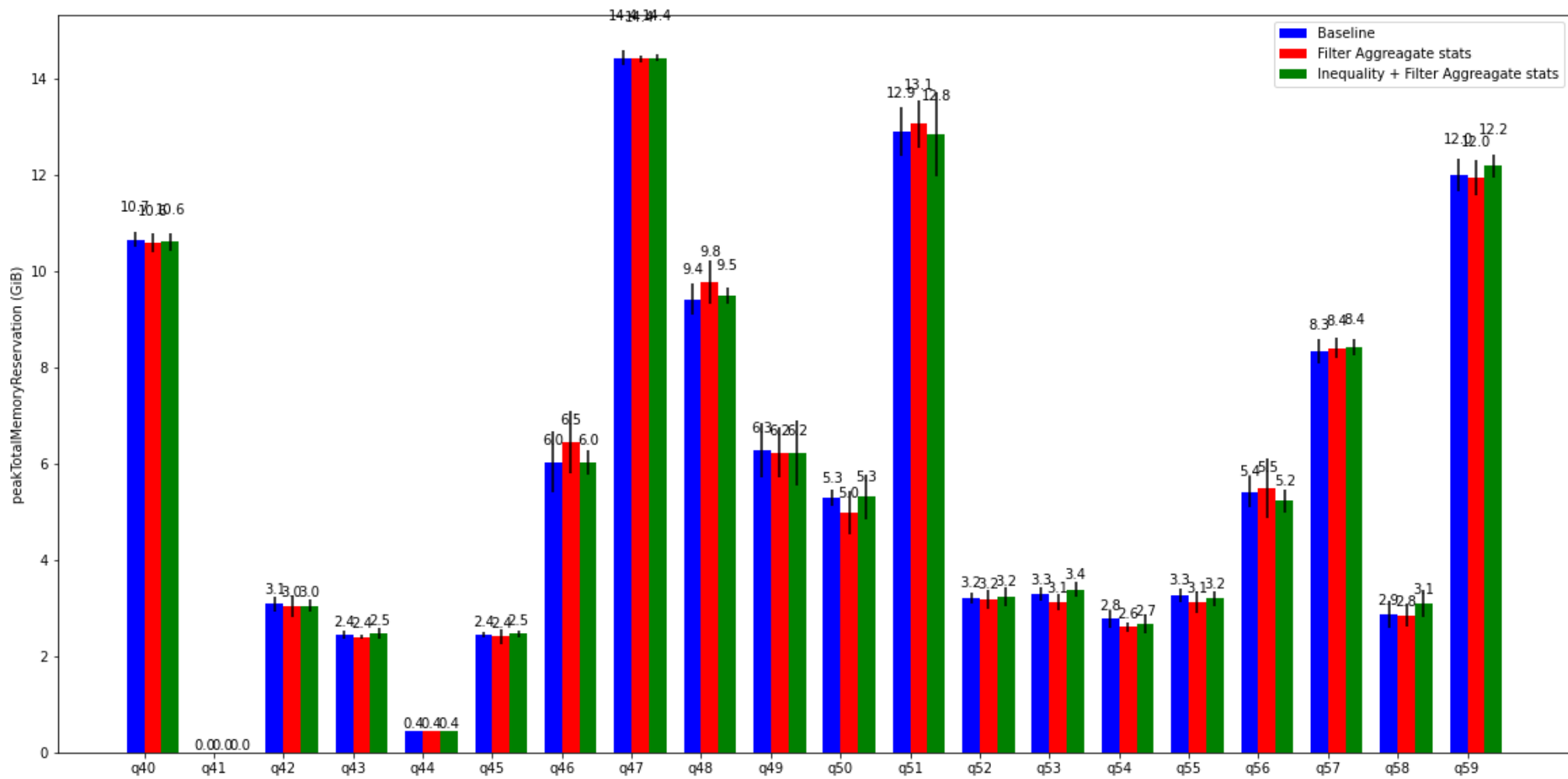
query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0 presto/tpch: q01	9.822 GiB	197.012 MiB	9.962 GiB	322.527 MiB	9.729 GiB	290.350 MiB
1 presto/tpch: q02	10.290 GiB	1.249 GiB	10.283 GiB	1.082 GiB	9.921 GiB	1.092 GiB
2 presto/tpch: q03	13.906 GiB	430.098 MiB	14.249 GiB	439.915 MiB	14.339 GiB	454.639 MiB
3 presto/tpch: q04	240.181 GiB	388.623 MiB	240.180 GiB	245.611 MiB	62.352 GiB	1.354 GiB
4 presto/tpch: q05	24.402 GiB	346.422 MiB	24.187 GiB	352.047 MiB	24.233 GiB	523.656 MiB

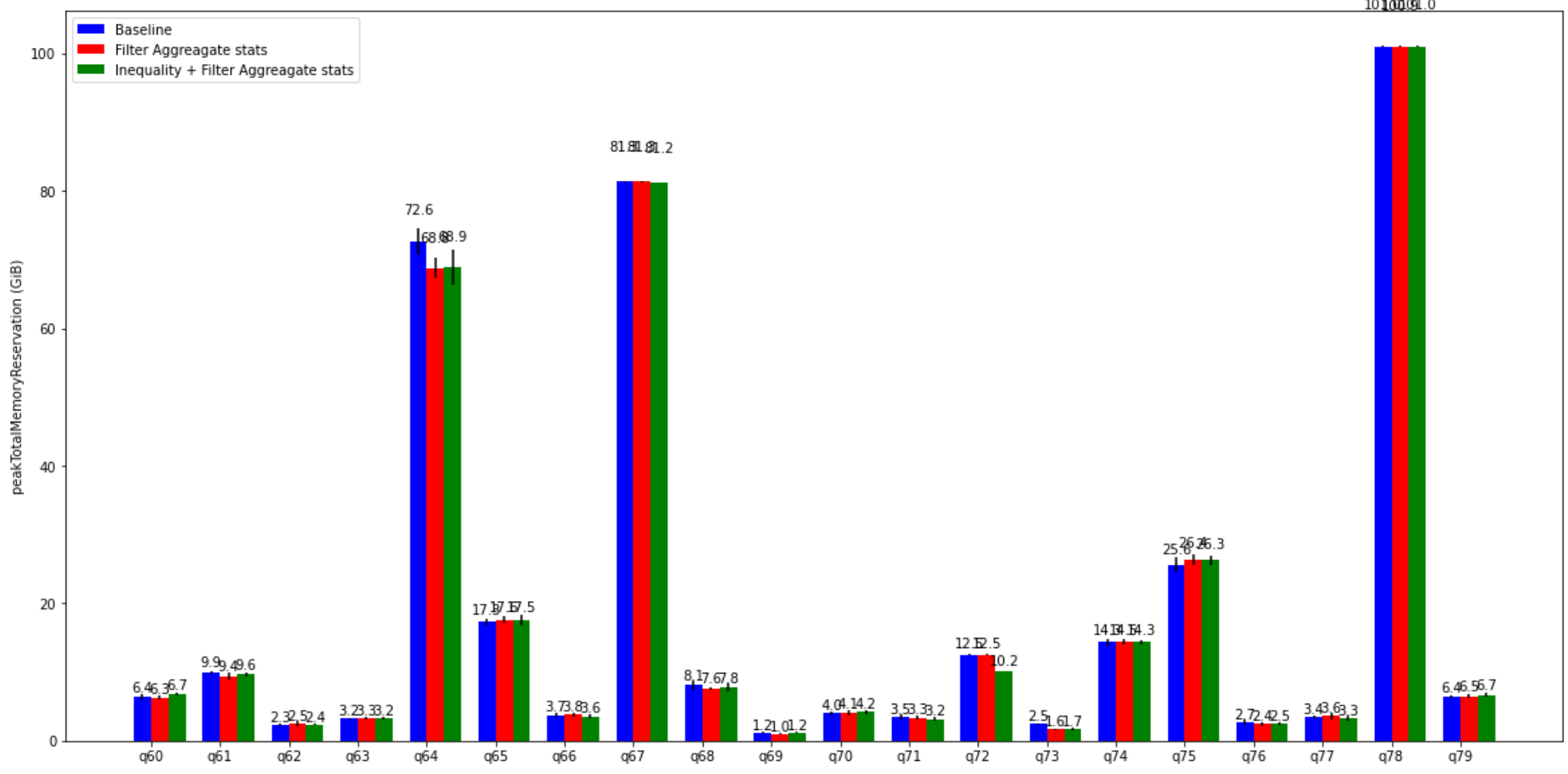
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
5	presto/tpch: q06	411.166 MiB	153.687 MiB	427.726 MiB	46.157 MiB	275.948 MiB	30.840 MiB
6	presto/tpch: q07	16.882 GiB	0.975 GiB	16.925 GiB	510.920 MiB	16.950 GiB	822.313 MiB
7	presto/tpch: q08	16.846 GiB	628.188 MiB	16.975 GiB	1.452 GiB	17.432 GiB	1.195 GiB
8	presto/tpch: q09	542.743 GiB	305.727 MiB	553.397 GiB	6.205 GiB	549.219 GiB	9.796 GiB
9	presto/tpch: q10	21.168 GiB	385.979 MiB	21.452 GiB	435.687 MiB	21.244 GiB	433.323 MiB
10	presto/tpch: q11	9.289 GiB	0.941 GiB	9.479 GiB	331.759 MiB	9.893 GiB	660.963 MiB
11	presto/tpch: q12	3.484 GiB	78.556 MiB	3.458 GiB	128.230 MiB	3.476 GiB	37.612 MiB
12	presto/tpch: q13	74.057 GiB	79.146 MiB	74.205 GiB	86.302 MiB	74.231 GiB	40.079 MiB
13	presto/tpch: q14	4.884 GiB	61.955 MiB	4.914 GiB	129.305 MiB	4.857 GiB	106.098 MiB
14	presto/tpch: q15	9.787 GiB	0.967 GiB	10.053 GiB	898.886 MiB	10.204 GiB	1.213 GiB
15	presto/tpch: q16	14.712 GiB	524.112 MiB	14.773 GiB	371.981 MiB	14.461 GiB	301.545 MiB
16	presto/tpch: q17	18.412 GiB	567.336 MiB	18.486 GiB	822.927 MiB	18.412 GiB	551.037 MiB
17	presto/tpch: q18	174.483 GiB	6.150 GiB	95.000 GiB	1.188 GiB	94.837 GiB	1.134 GiB
18	presto/tpch: q19	23.579 GiB	1.509 GiB	23.778 GiB	1.774 GiB	23.580 GiB	1.489 GiB
19	presto/tpch: q20	30.710 GiB	195.912 MiB	30.757 GiB	469.024 MiB	30.712 GiB	390.312 MiB
20	presto/tpch: q21	673.547 GiB	17.305 MiB	673.559 GiB	36.531 MiB	42.617 GiB	617.860 MiB
21	presto/tpch: q22	13.987 GiB	4.000 GiB	15.226 GiB	2.348 GiB	11.627 GiB	2.501 GiB

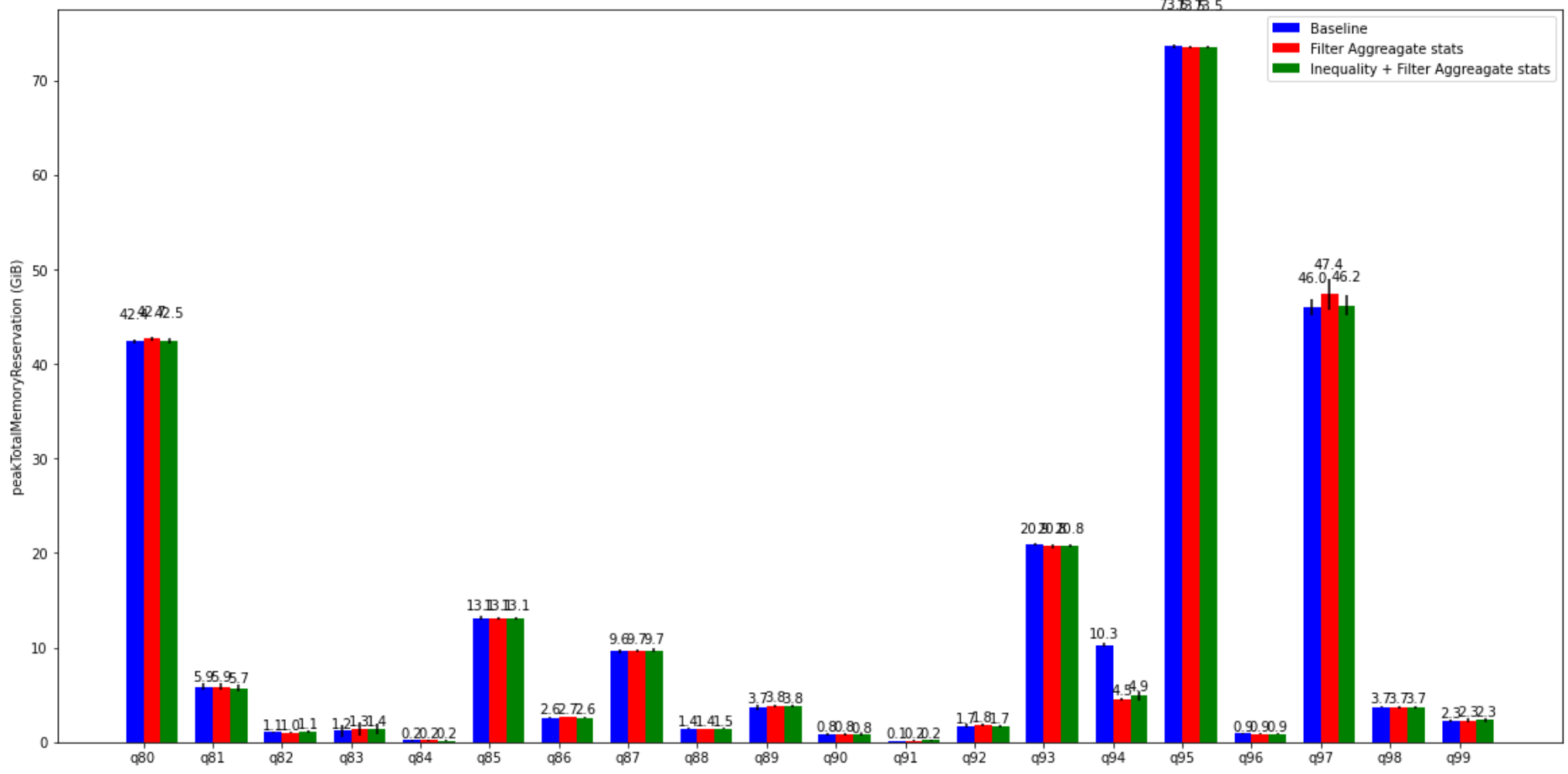
TPC-DS Comparison (Peak memory)

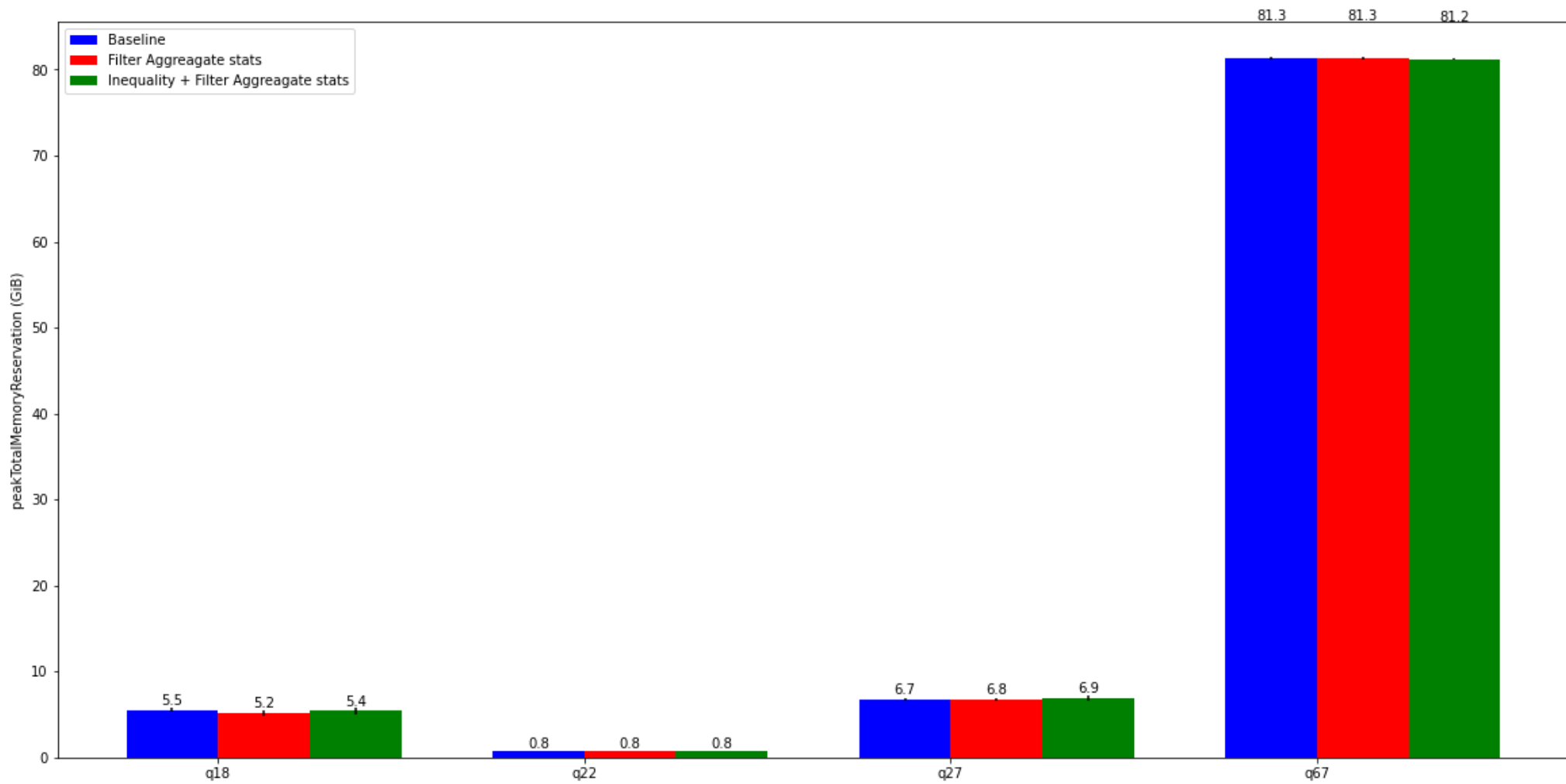












	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0	presto/tpcds: q01	11.199 GiB	380.287 MiB	11.293 GiB	435.391 MiB	11.230 GiB	180.065 MiB
1	presto/tpcds: q02	3.553 GiB	77.974 MiB	3.420 GiB	43.962 MiB	3.390 GiB	53.859 MiB
2	presto/tpcds: q03	3.085 GiB	214.959 MiB	3.052 GiB	106.445 MiB	2.873 GiB	169.350 MiB
3	presto/tpcds: q04	37.460 GiB	631.488 MiB	38.100 GiB	583.876 MiB	37.380 GiB	762.908 MiB
4	presto/tpcds: q05	12.083 GiB	174.099 MiB	12.086 GiB	227.624 MiB	12.030 GiB	269.944 MiB

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
5	presto/tpcds: q06	2.421 GiB	279.725 MiB	2.354 GiB	178.929 MiB	2.453 GiB	257.484 MiB
6	presto/tpcds: q07	7.721 GiB	145.282 MiB	8.018 GiB	579.159 MiB	7.921 GiB	354.382 MiB
7	presto/tpcds: q08	2.540 GiB	166.956 MiB	2.630 GiB	369.420 MiB	2.660 GiB	335.499 MiB
8	presto/tpcds: q09	1.102 GiB	148.773 MiB	1.058 GiB	86.677 MiB	1.045 GiB	76.961 MiB
9	presto/tpcds: q10	0.931 GiB	67.546 MiB	0.929 GiB	77.633 MiB	886.858 MiB	50.653 MiB
10	presto/tpcds: q11	23.431 GiB	505.771 MiB	22.827 GiB	521.566 MiB	22.730 GiB	708.825 MiB
11	presto/tpcds: q12	2.108 GiB	205.286 MiB	2.207 GiB	191.284 MiB	2.033 GiB	172.605 MiB
12	presto/tpcds: q13	15.221 GiB	523.536 MiB	15.145 GiB	447.291 MiB	15.089 GiB	730.196 MiB
13	presto/tpcds: q14	7.358 GiB	674.896 MiB	5.745 GiB	24.666 MiB	5.726 GiB	44.629 MiB
14	presto/tpcds: q15	1.293 GiB	149.062 MiB	1.320 GiB	218.129 MiB	1.356 GiB	192.202 MiB
15	presto/tpcds: q16	19.916 GiB	244.460 MiB	6.797 GiB	366.172 MiB	6.767 GiB	158.584 MiB
16	presto/tpcds: q17	7.204 GiB	343.942 MiB	7.008 GiB	346.692 MiB	6.881 GiB	340.459 MiB
17	presto/tpcds: q18	5.530 GiB	276.685 MiB	5.194 GiB	288.614 MiB	5.443 GiB	426.693 MiB
18	presto/tpcds: q19	4.237 GiB	258.038 MiB	4.294 GiB	389.458 MiB	4.207 GiB	163.808 MiB
19	presto/tpcds: q20	1.089 GiB	127.017 MiB	1.072 GiB	94.194 MiB	1.239 GiB	139.780 MiB
20	presto/tpcds: q21	650.026 MiB	3.600 MiB	645.345 MiB	7.904 MiB	648.317 MiB	6.404 MiB
21	presto/tpcds: q22	836.646 MiB	8.324 MiB	834.993 MiB	6.227 MiB	832.717 MiB	5.341 MiB

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
22	presto/tpcds: q23	57.944 GiB	753.398 MiB	55.987 GiB	2.652 GiB	54.978 GiB	3.103 GiB
23	presto/tpcds: q24	20.382 GiB	469.731 MiB	20.393 GiB	464.598 MiB	20.623 GiB	282.237 MiB
24	presto/tpcds: q25	6.315 GiB	627.223 MiB	6.289 GiB	623.228 MiB	6.819 GiB	1.082 GiB
25	presto/tpcds: q26	3.383 GiB	191.915 MiB	3.468 GiB	425.204 MiB	3.675 GiB	411.467 MiB
26	presto/tpcds: q27	6.712 GiB	214.589 MiB	6.753 GiB	162.608 MiB	6.941 GiB	328.250 MiB
27	presto/tpcds: q28	399.551 MiB	2.255 MiB	401.343 MiB	3.209 MiB	398.829 MiB	2.151 MiB
28	presto/tpcds: q29	5.792 GiB	514.084 MiB	5.498 GiB	328.992 MiB	5.530 GiB	507.726 MiB
29	presto/tpcds: q30	3.240 GiB	322.489 MiB	3.074 GiB	40.035 MiB	3.085 GiB	126.881 MiB
30	presto/tpcds: q31	5.003 GiB	122.602 MiB	4.906 GiB	156.460 MiB	4.863 GiB	120.540 MiB
31	presto/tpcds: q32	1.491 GiB	170.408 MiB	1.536 GiB	136.108 MiB	1.535 GiB	159.752 MiB
32	presto/tpcds: q33	5.493 GiB	391.486 MiB	5.701 GiB	491.298 MiB	5.481 GiB	458.224 MiB
33	presto/tpcds: q34	2.671 GiB	187.052 MiB	1.701 GiB	222.172 MiB	1.742 GiB	258.160 MiB
34	presto/tpcds: q35	3.294 GiB	106.370 MiB	3.197 GiB	162.959 MiB	3.130 GiB	150.558 MiB
35	presto/tpcds: q36	5.472 GiB	496.992 MiB	5.706 GiB	780.584 MiB	5.469 GiB	459.380 MiB
36	presto/tpcds: q37	468.308 MiB	79.753 MiB	462.668 MiB	57.564 MiB	453.545 MiB	109.338 MiB
37	presto/tpcds: q38	9.723 GiB	224.660 MiB	9.498 GiB	254.798 MiB	9.597 GiB	215.651 MiB
38	presto/tpcds: q39	1.600 GiB	40.136 MiB	1.600 GiB	92.146 MiB	1.624 GiB	71.635 MiB

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
39	presto/tpcds: q40	10.663 GiB	159.355 MiB	10.589 GiB	204.339 MiB	10.615 GiB	182.189 MiB
40	presto/tpcds: q41	9.001 KiB	0.961 KiB	9.157 KiB	862.806 YiB	9.159 KiB	862.216 YiB
41	presto/tpcds: q42	3.087 GiB	163.648 MiB	3.040 GiB	221.651 MiB	3.043 GiB	127.914 MiB
42	presto/tpcds: q43	2.445 GiB	90.531 MiB	2.402 GiB	50.351 MiB	2.464 GiB	112.966 MiB
43	presto/tpcds: q44	445.843 MiB	1.027 MiB	445.854 MiB	440.281 KiB	445.756 MiB	834.488 KiB
44	presto/tpcds: q45	2.439 GiB	61.708 MiB	2.418 GiB	158.586 MiB	2.471 GiB	68.101 MiB
45	presto/tpcds: q46	6.039 GiB	641.433 MiB	6.453 GiB	655.756 MiB	6.030 GiB	270.634 MiB
46	presto/tpcds: q47	14.436 GiB	160.658 MiB	14.414 GiB	67.579 MiB	14.431 GiB	71.163 MiB
47	presto/tpcds: q48	9.419 GiB	340.992 MiB	9.776 GiB	463.334 MiB	9.497 GiB	183.747 MiB
48	presto/tpcds: q49	6.273 GiB	576.370 MiB	6.231 GiB	533.745 MiB	6.221 GiB	684.020 MiB
49	presto/tpcds: q50	5.285 GiB	177.451 MiB	4.985 GiB	471.588 MiB	5.310 GiB	468.251 MiB
50	presto/tpcds: q51	12.911 GiB	514.752 MiB	13.060 GiB	508.028 MiB	12.849 GiB	897.770 MiB
51	presto/tpcds: q52	3.213 GiB	114.441 MiB	3.189 GiB	206.029 MiB	3.237 GiB	190.318 MiB
52	presto/tpcds: q53	3.282 GiB	147.256 MiB	3.125 GiB	181.345 MiB	3.384 GiB	151.082 MiB
53	presto/tpcds: q54	2.777 GiB	190.416 MiB	2.603 GiB	101.155 MiB	2.669 GiB	209.206 MiB
54	presto/tpcds: q55	3.261 GiB	140.168 MiB	3.120 GiB	222.880 MiB	3.195 GiB	166.597 MiB
55	presto/tpcds: q56	5.413 GiB	334.891 MiB	5.489 GiB	644.321 MiB	5.224 GiB	232.934 MiB

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
56	presto/tpcds: q57	8.333 GiB	261.157 MiB	8.404 GiB	225.221 MiB	8.419 GiB	162.550 MiB
57	presto/tpcds: q58	2.872 GiB	289.989 MiB	2.847 GiB	241.284 MiB	3.094 GiB	282.814 MiB
58	presto/tpcds: q59	12.008 GiB	340.643 MiB	11.951 GiB	374.652 MiB	12.192 GiB	243.110 MiB
59	presto/tpcds: q60	6.403 GiB	324.069 MiB	6.290 GiB	333.401 MiB	6.719 GiB	204.527 MiB
60	presto/tpcds: q61	9.909 GiB	274.963 MiB	9.409 GiB	517.774 MiB	9.634 GiB	222.982 MiB
61	presto/tpcds: q62	2.290 GiB	162.318 MiB	2.508 GiB	369.874 MiB	2.379 GiB	139.565 MiB
62	presto/tpcds: q63	3.195 GiB	183.878 MiB	3.293 GiB	150.893 MiB	3.231 GiB	154.621 MiB
63	presto/tpcds: q64	72.608 GiB	2.044 GiB	68.760 GiB	1.487 GiB	68.878 GiB	2.545 GiB
64	presto/tpcds: q65	17.252 GiB	508.175 MiB	17.604 GiB	509.372 MiB	17.530 GiB	781.645 MiB
65	presto/tpcds: q66	3.694 GiB	316.991 MiB	3.769 GiB	384.272 MiB	3.573 GiB	287.748 MiB
66	presto/tpcds: q67	81.316 GiB	121.505 MiB	81.347 GiB	125.851 MiB	81.210 GiB	90.380 MiB
67	presto/tpcds: q68	8.088 GiB	658.467 MiB	7.596 GiB	128.442 MiB	7.759 GiB	668.606 MiB
68	presto/tpcds: q69	1.200 GiB	164.287 MiB	1.035 GiB	70.587 MiB	1.219 GiB	139.836 MiB
69	presto/tpcds: q70	3.965 GiB	283.514 MiB	4.084 GiB	335.657 MiB	4.200 GiB	260.279 MiB
70	presto/tpcds: q71	3.471 GiB	330.425 MiB	3.343 GiB	279.517 MiB	3.183 GiB	381.000 MiB
71	presto/tpcds: q72	12.494 GiB	111.733 MiB	12.518 GiB	68.005 MiB	10.176 GiB	26.438 MiB
72	presto/tpcds: q73	2.464 GiB	103.564 MiB	1.645 GiB	149.314 MiB	1.709 GiB	139.308 MiB

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
73	presto/tpcds: q74	14.324 GiB	487.659 MiB	14.462 GiB	394.792 MiB	14.334 GiB	375.817 MiB
74	presto/tpcds: q75	25.623 GiB	1.104 GiB	26.403 GiB	794.212 MiB	26.317 GiB	708.488 MiB
75	presto/tpcds: q76	2.746 GiB	378.870 MiB	2.438 GiB	239.103 MiB	2.511 GiB	268.930 MiB
76	presto/tpcds: q77	3.425 GiB	234.967 MiB	3.602 GiB	532.968 MiB	3.302 GiB	368.034 MiB
77	presto/tpcds: q78	101.005 GiB	55.752 MiB	100.936 GiB	107.811 MiB	101.018 GiB	89.471 MiB
78	presto/tpcds: q79	6.447 GiB	171.968 MiB	6.503 GiB	380.882 MiB	6.691 GiB	345.783 MiB
79	presto/tpcds: q80	42.396 GiB	243.918 MiB	42.677 GiB	210.040 MiB	42.476 GiB	270.362 MiB
80	presto/tpcds: q81	5.858 GiB	377.552 MiB	5.880 GiB	375.207 MiB	5.741 GiB	390.114 MiB
81	presto/tpcds: q82	1.059 GiB	68.419 MiB	1.014 GiB	116.519 MiB	1.115 GiB	184.318 MiB
82	presto/tpcds: q83	1.202 GiB	613.673 MiB	1.347 GiB	708.311 MiB	1.425 GiB	590.351 MiB
83	presto/tpcds: q84	204.065 MiB	70.141 MiB	213.527 MiB	96.262 MiB	189.438 MiB	83.945 MiB
84	presto/tpcds: q85	13.123 GiB	211.671 MiB	13.077 GiB	182.865 MiB	13.070 GiB	168.211 MiB
85	presto/tpcds: q86	2.600 GiB	36.499 MiB	2.673 GiB	45.308 MiB	2.606 GiB	62.287 MiB
86	presto/tpcds: q87	9.619 GiB	186.752 MiB	9.655 GiB	210.126 MiB	9.699 GiB	208.020 MiB
87	presto/tpcds: q88	1.430 GiB	44.790 MiB	1.422 GiB	34.727 MiB	1.467 GiB	90.056 MiB
88	presto/tpcds: q89	3.720 GiB	310.638 MiB	3.802 GiB	196.258 MiB	3.773 GiB	129.178 MiB
89	presto/tpcds: q90	844.664 MiB	188.982 MiB	832.479 MiB	111.943 MiB	807.953 MiB	144.801 MiB

	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
90	presto/tpcds: q91	136.856 MiB	13.325 MiB	159.198 MiB	42.682 MiB	202.549 MiB	27.969 MiB
91	presto/tpcds: q92	1.718 GiB	239.811 MiB	1.825 GiB	105.678 MiB	1.699 GiB	135.948 MiB
92	presto/tpcds: q93	20.872 GiB	135.952 MiB	20.751 GiB	210.356 MiB	20.817 GiB	129.849 MiB
93	presto/tpcds: q94	10.284 GiB	248.188 MiB	4.510 GiB	193.791 MiB	4.923 GiB	510.170 MiB
94	presto/tpcds: q95	73.586 GiB	200.058 MiB	73.496 GiB	171.669 MiB	73.528 GiB	175.662 MiB
95	presto/tpcds: q96	937.158 MiB	113.591 MiB	882.553 MiB	82.091 MiB	907.706 MiB	108.275 MiB
96	presto/tpcds: q97	46.035 GiB	895.151 MiB	47.360 GiB	1.576 GiB	46.189 GiB	1.077 GiB
97	presto/tpcds: q98	3.738 GiB	102.576 MiB	3.695 GiB	170.887 MiB	3.687 GiB	91.782 MiB
98	presto/tpcds: q99	2.283 GiB	170.996 MiB	2.289 GiB	205.348 MiB	2.335 GiB	196.020 MiB