

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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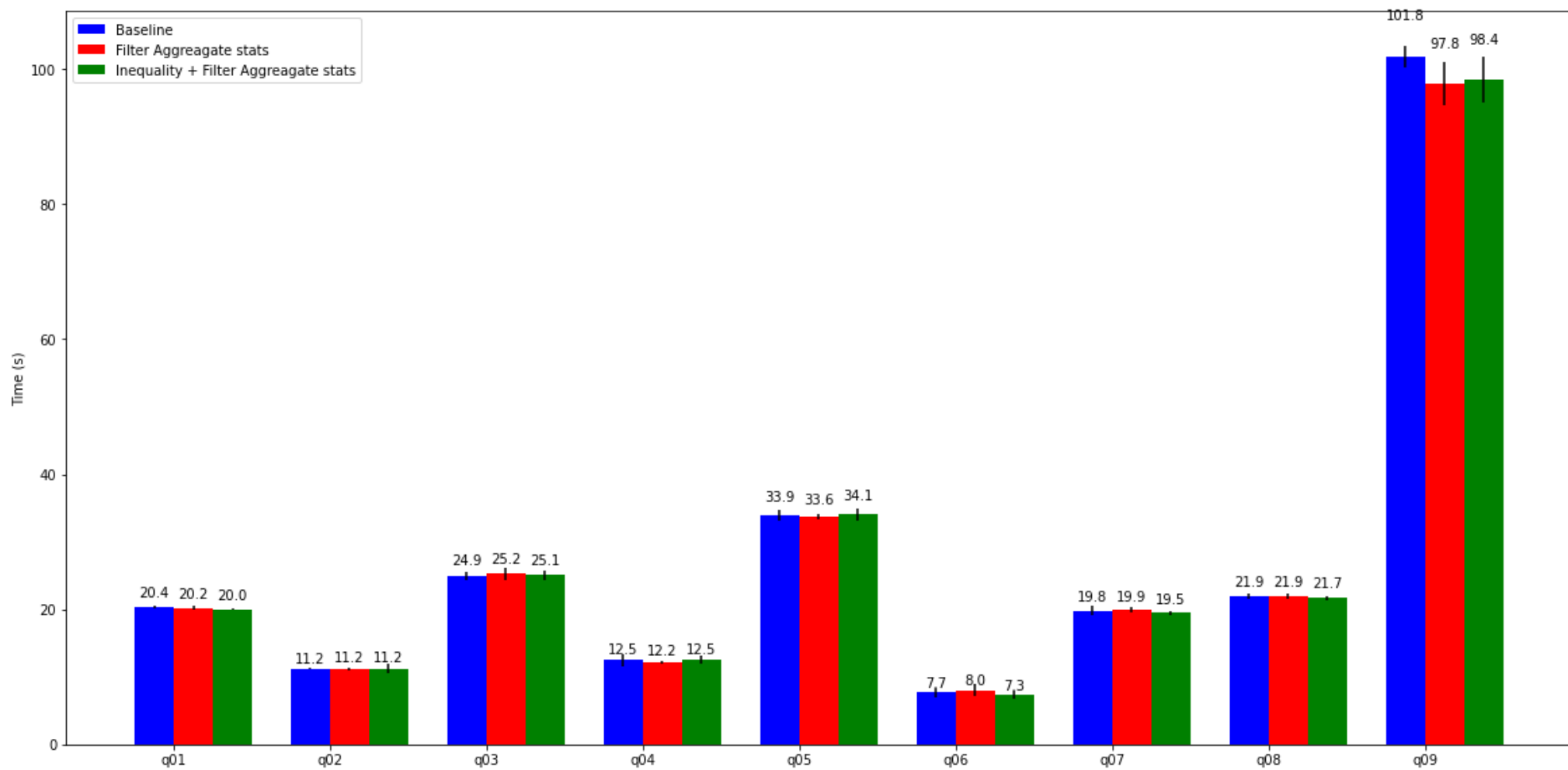
Inequality + Filter Aggregate stats

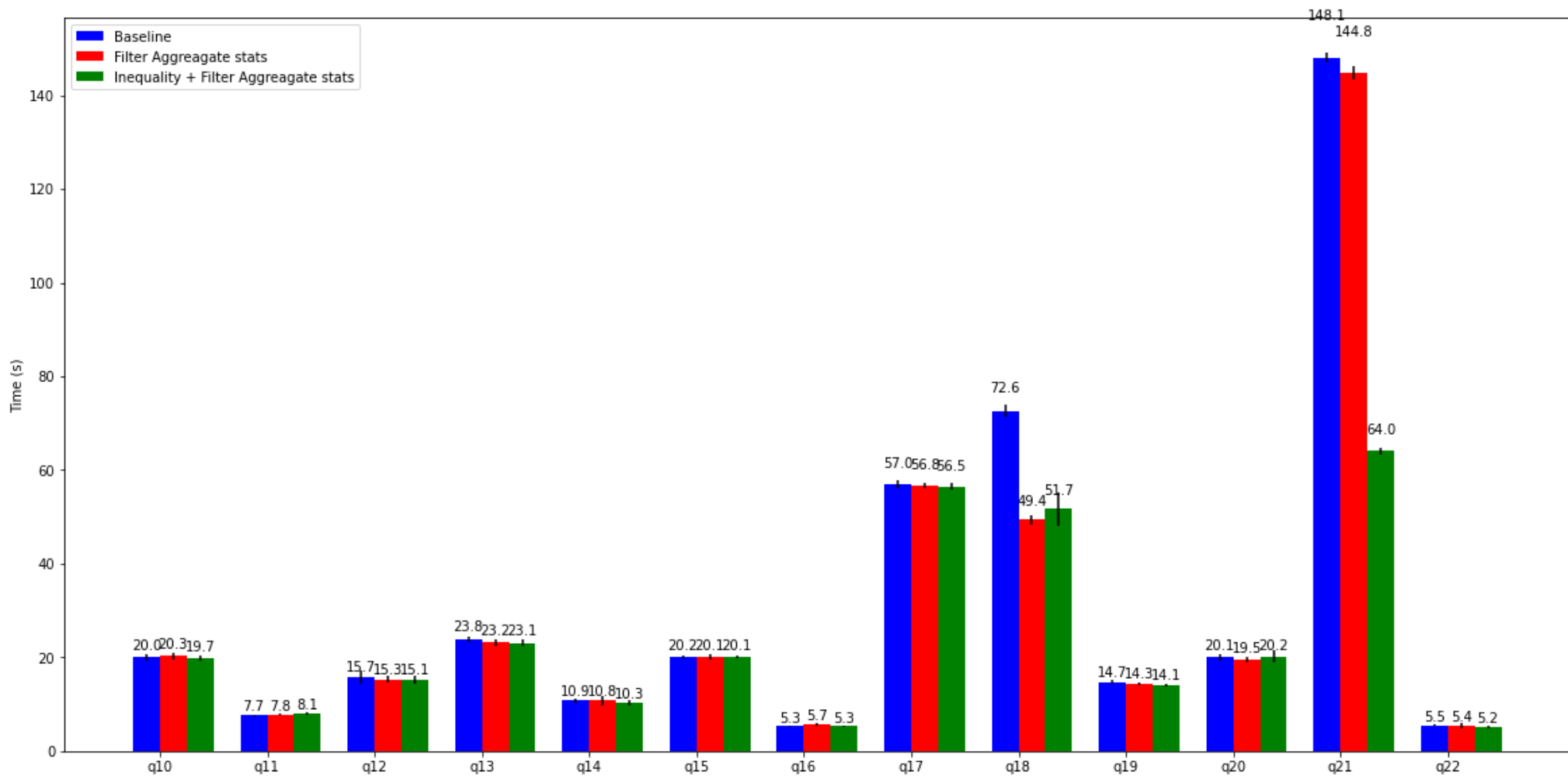
benchmark	query	mean_duration	std_dev
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SUMMARY

	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	563.218833	1602.083000	62687.100000	208671.282000	1.041 TiB	2.283 TiB	1.045 TiB	0.995 TiB

TPC-H Comparison (DURATION)

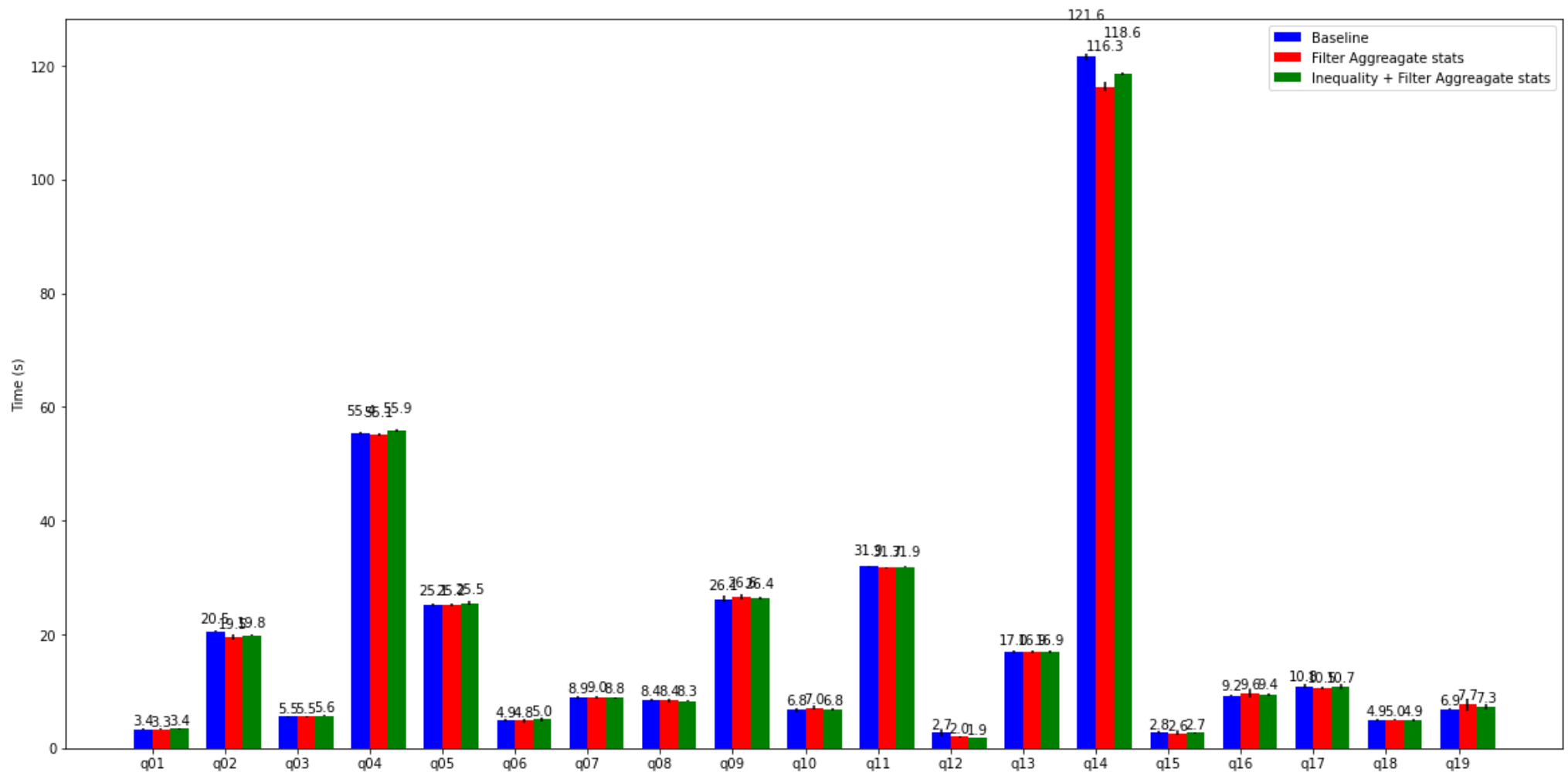


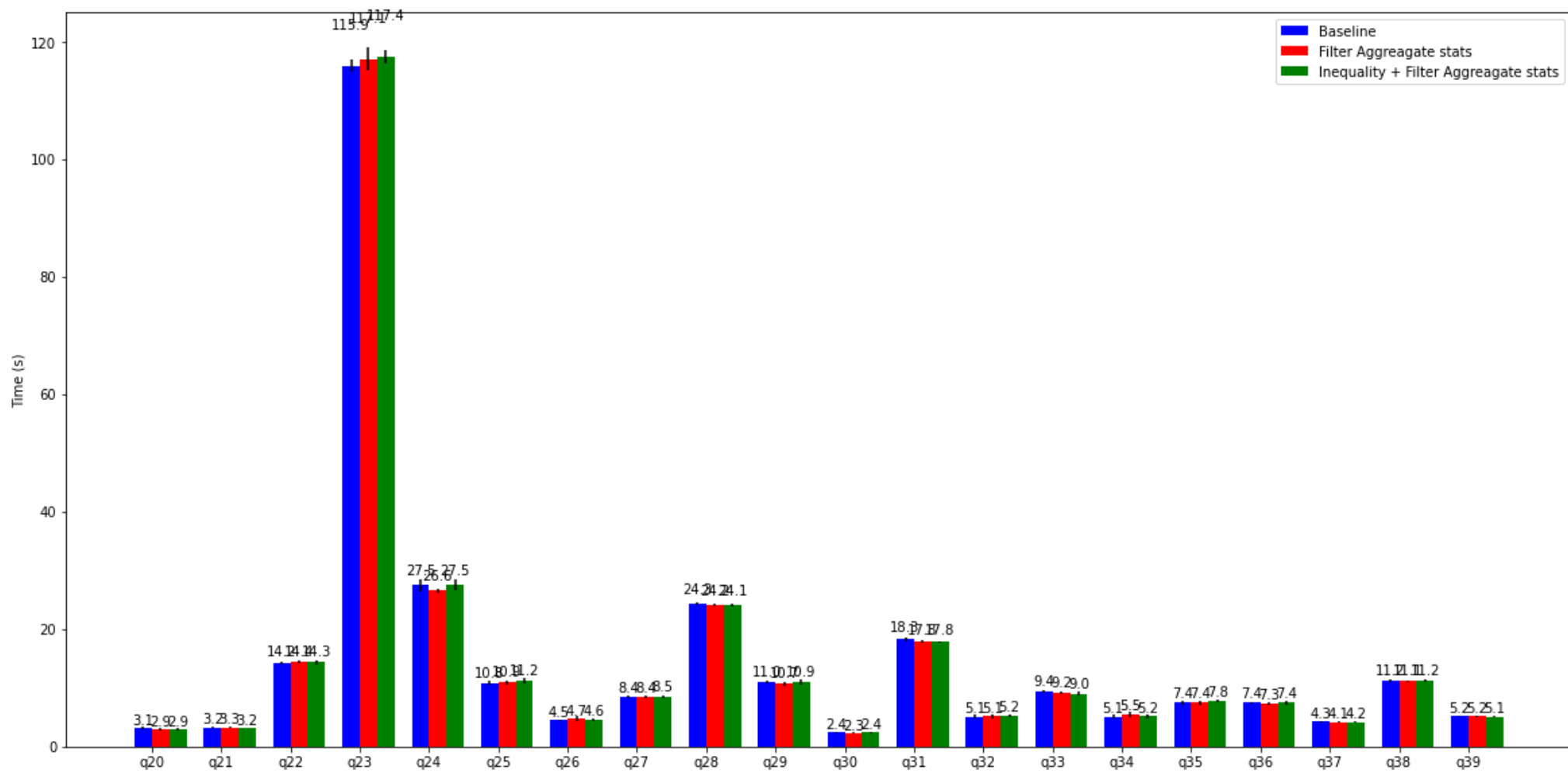


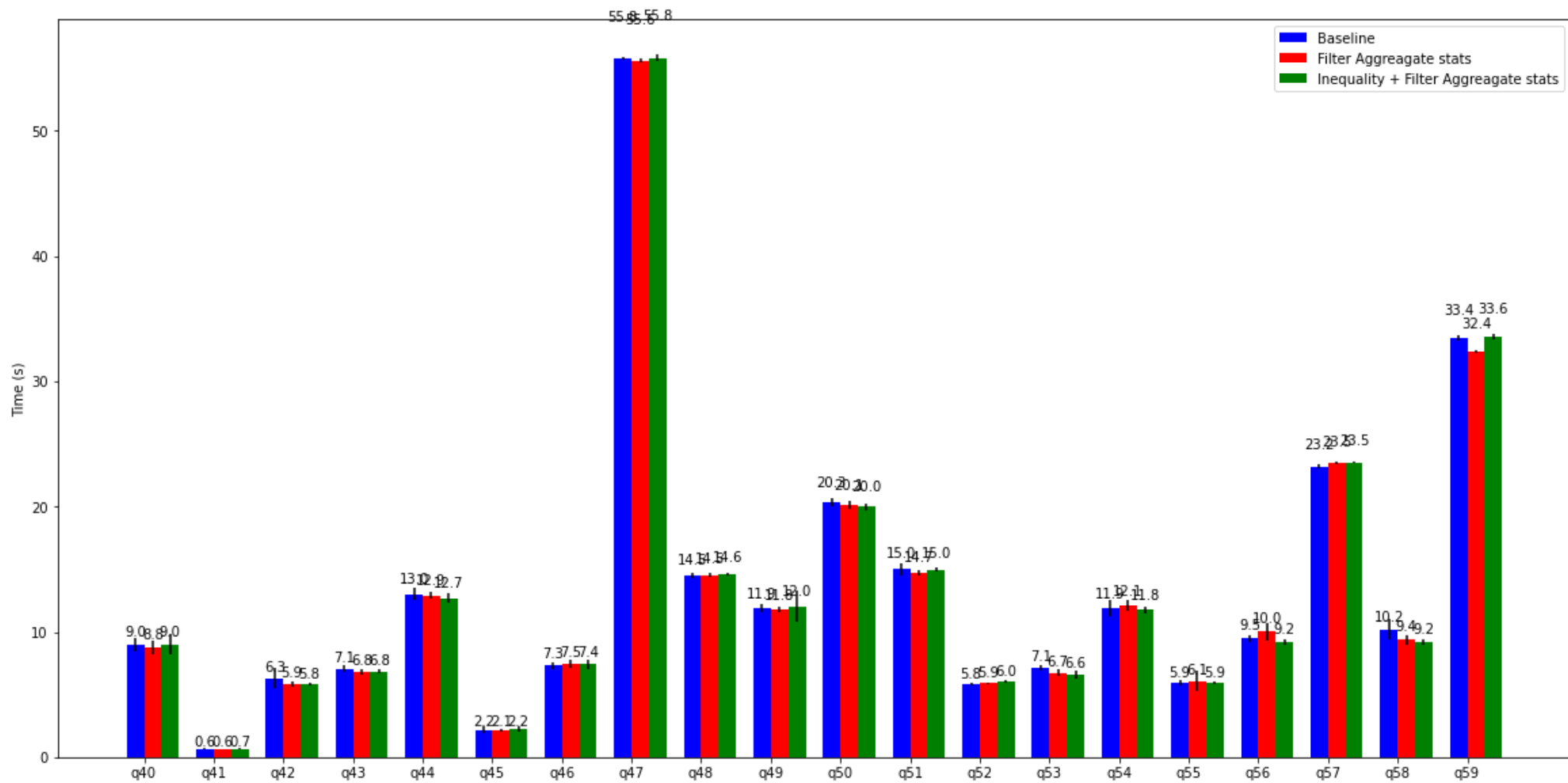
query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0 presto/tpch: q01	20.362333	0.189501	20.190167	0.296340	20.029333	0.188393
1 presto/tpch: q02	11.175667	0.103239	11.230000	0.207336	11.226167	0.670403
2 presto/tpch: q03	24.945333	0.531843	25.246500	0.854160	25.054167	0.632114
3 presto/tpch: q04	12.496333	0.932110	12.174500	0.208293	12.488333	0.570148
4 presto/tpch: q05	33.942333	0.772331	33.625833	0.388376	34.081667	0.892441

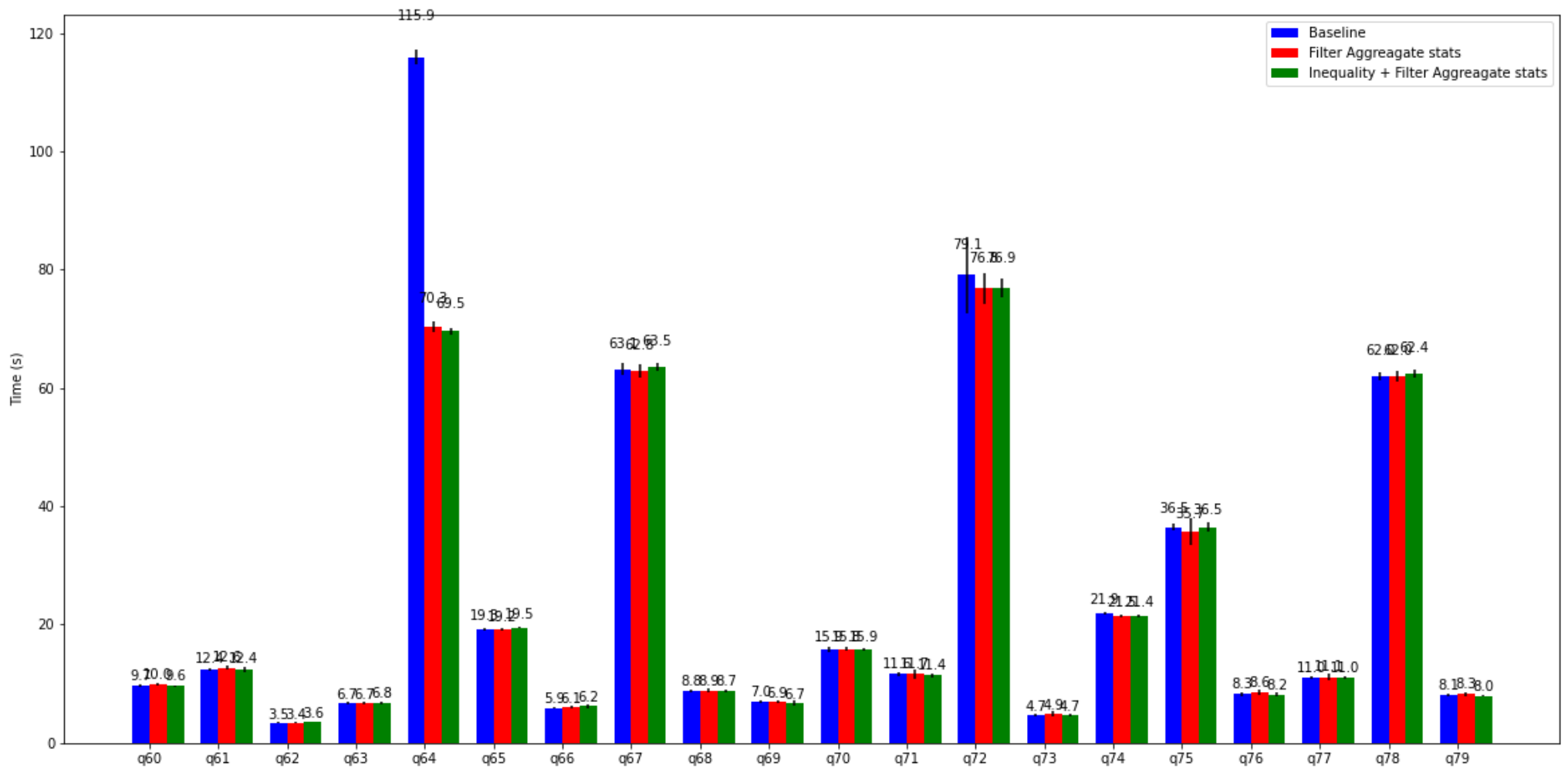
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
5	presto/tpch: q06	7.687000	0.663880	8.040167	0.852762	7.322000	0.577620
6	presto/tpch: q07	19.773333	0.686106	19.852500	0.410984	19.454500	0.243654
7	presto/tpch: q08	21.874833	0.398706	21.915667	0.413002	21.686833	0.322808
8	presto/tpch: q09	101.802500	1.595117	97.836000	3.154636	98.410167	3.397140
9	presto/tpch: q10	19.956167	0.775944	20.273500	0.728298	19.719167	0.613301
10	presto/tpch: q11	7.661833	0.169877	7.763167	0.143535	8.057667	0.292332
11	presto/tpch: q12	15.713167	1.472041	15.261333	0.683930	15.143500	0.818326
12	presto/tpch: q13	23.827333	0.660673	23.152333	0.780833	23.094000	0.661914
13	presto/tpch: q14	10.854500	0.417564	10.773333	0.938677	10.313833	0.669109
14	presto/tpch: q15	20.177000	0.313809	20.090667	0.454621	20.089667	0.405166
15	presto/tpch: q16	5.293167	0.089047	5.702500	0.299941	5.334500	0.090159
16	presto/tpch: q17	56.988667	0.819198	56.784000	0.598591	56.468333	0.651306
17	presto/tpch: q18	72.586833	1.222914	49.366833	1.004971	51.678333	3.609732
18	presto/tpch: q19	14.667000	0.426624	14.345833	0.257419	14.123167	0.322843
19	presto/tpch: q20	20.083500	0.725055	19.457833	0.556647	20.150833	1.291006
20	presto/tpch: q21	148.094000	0.986952	144.795167	1.329706	64.048833	0.672339
21	presto/tpch: q22	5.509500	0.182144	5.436833	0.468644	5.243833	0.309480

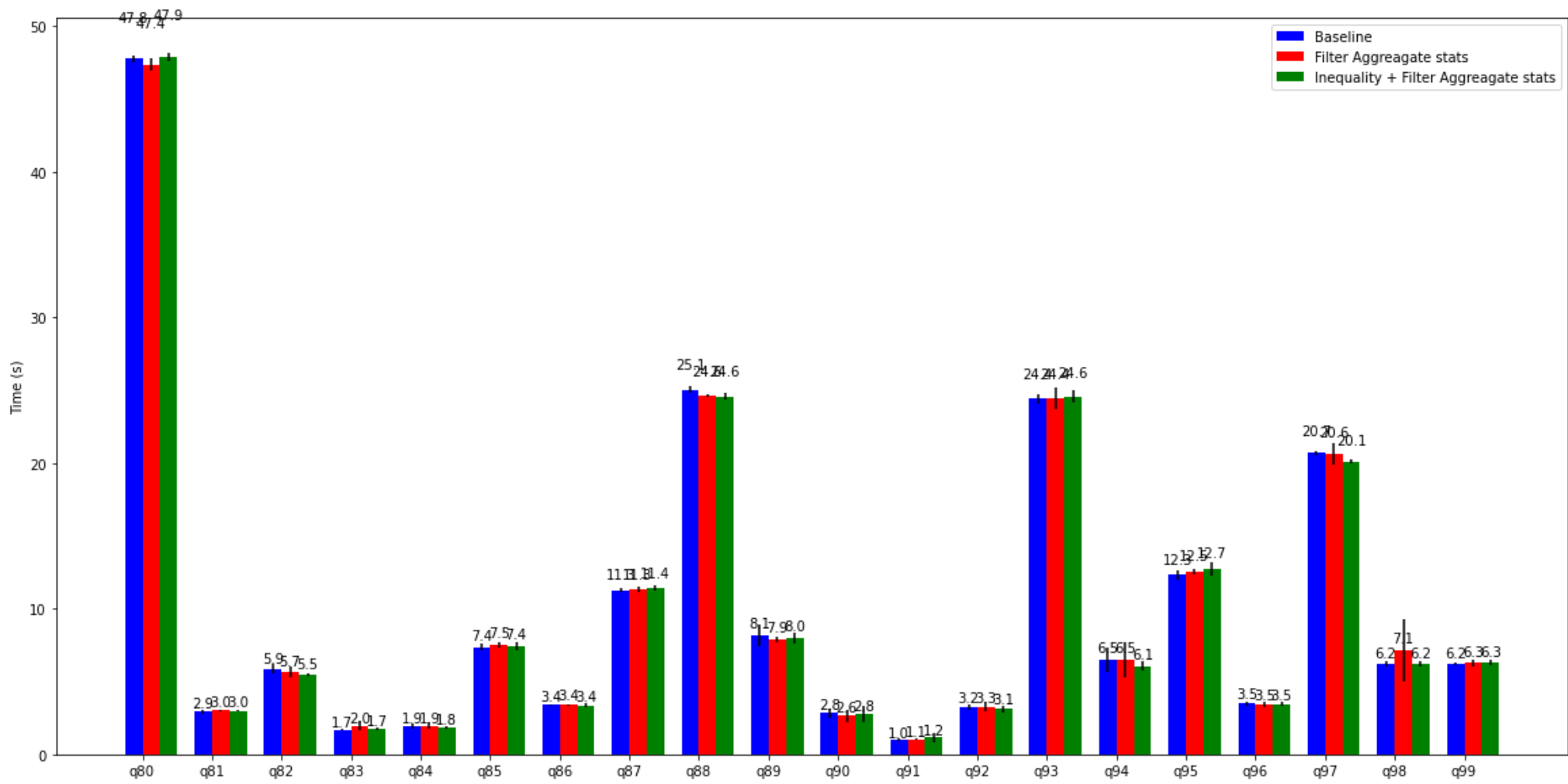
TPC-DS Comparison (DURATION)

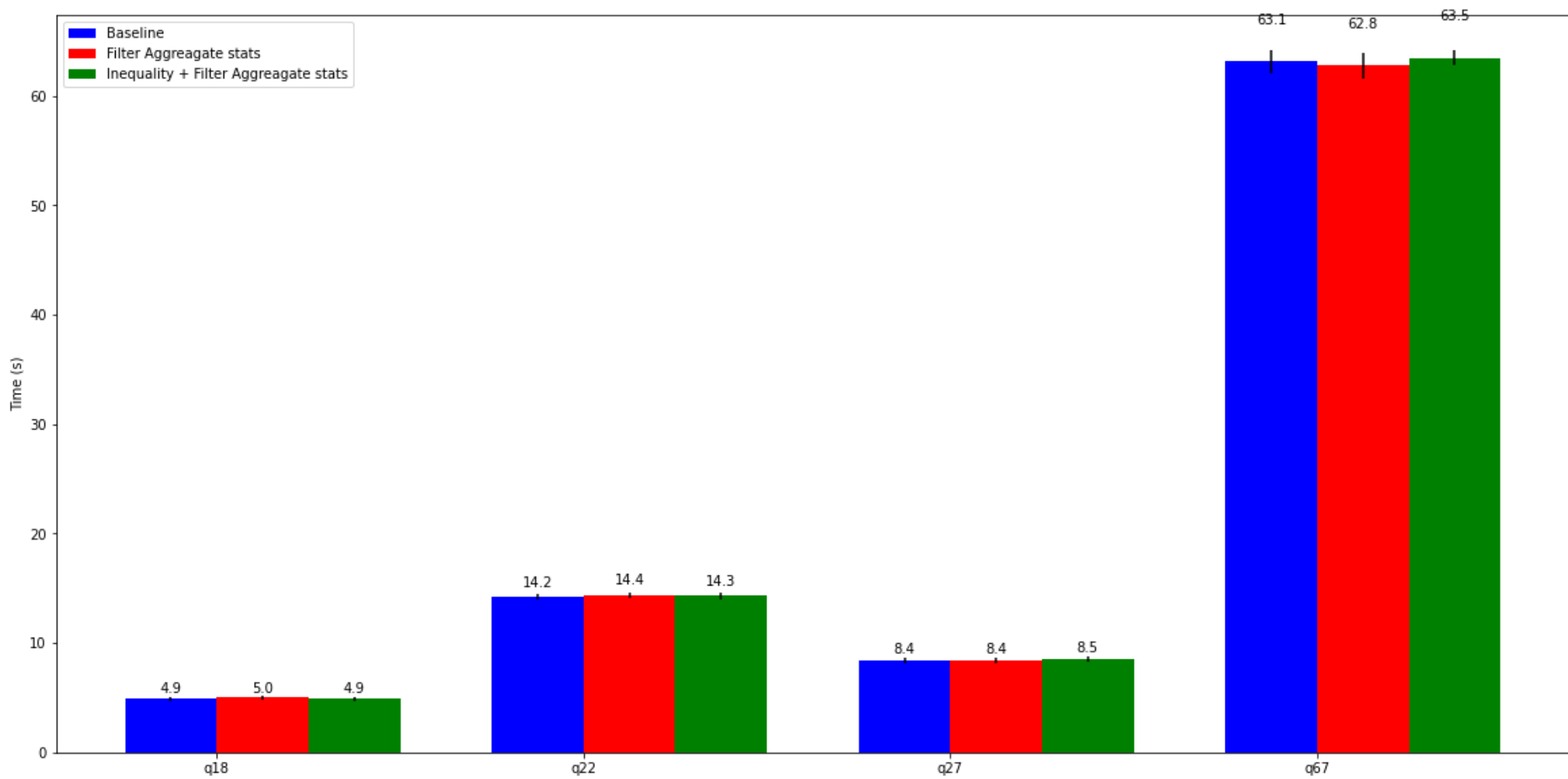












	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0	presto/tpcds: q01	3.359000	0.057334	3.329000	0.114757	3.400667	0.089099
1	presto/tpcds: q02	20.527167	0.093726	19.538833	0.453837	19.848167	0.116594
2	presto/tpcds: q03	5.509333	0.101008	5.524500	0.175639	5.643833	0.103293
3	presto/tpcds: q04	55.412167	0.319829	55.107333	0.296234	55.884333	0.317815
4	presto/tpcds: q05	25.132333	0.189780	25.205667	0.167977	25.530500	0.395058

	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	5.047500	0.351482
6	presto/tpcds: q07	8.902833	0.159547	8.959333	0.265077	8.843167	0.153763
7	presto/tpcds: q08	8.437167	0.341757	8.417500	0.363956	8.318833	0.179350
8	presto/tpcds: q09	26.144167	0.586764	26.560667	0.491738	26.367333	0.326884
9	presto/tpcds: q10	6.757667	0.368124	7.041500	0.346163	6.798333	0.210201
10	presto/tpcds: q11	31.946000	0.198989	31.748833	0.146553	31.853333	0.123114
11	presto/tpcds: q12	2.721000	0.588798	1.999000	0.068211	1.920167	0.031594
12	presto/tpcds: q13	17.001833	0.232006	16.945167	0.158007	16.887833	0.199367
13	presto/tpcds: q14	121.552833	0.554316	116.336500	0.852149	118.574667	0.189926
14	presto/tpcds: q15	2.766833	0.151908	2.576167	0.357934	2.732833	0.079426
15	presto/tpcds: q16	9.243333	0.158770	9.605833	0.660356	9.432167	0.243450
16	presto/tpcds: q17	10.836500	0.329096	10.541333	0.230591	10.734833	0.483375
17	presto/tpcds: q18	4.905667	0.188682	5.004500	0.184077	4.916000	0.168176
18	presto/tpcds: q19	6.906667	0.107619	7.706667	1.078584	7.259500	0.431475
19	presto/tpcds: q20	3.107333	0.222709	2.928500	0.187289	2.918000	0.168288
20	presto/tpcds: q21	3.238000	0.089648	3.278000	0.163560	3.163167	0.036030
21	presto/tpcds: q22	14.219000	0.290513	14.372333	0.237789	14.337167	0.308790

	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	117.423667	1.180722
23	presto/tpcds: q24	27.516333	1.070106	26.574000	0.388737	27.510333	0.959454
24	presto/tpcds: q25	10.833833	0.305386	10.898500	0.260691	11.159333	0.419951
25	presto/tpcds: q26	4.493667	0.087099	4.726667	0.422792	4.608833	0.200411
26	presto/tpcds: q27	8.380833	0.256026	8.428000	0.275001	8.514667	0.282253
27	presto/tpcds: q28	24.344500	0.138774	24.160833	0.185937	24.120667	0.250696
28	presto/tpcds: q29	11.038167	0.287165	10.744667	0.337037	10.896333	0.465608
29	presto/tpcds: q30	2.394333	0.071673	2.340833	0.083856	2.424500	0.123304
30	presto/tpcds: q31	18.273500	0.312556	17.805500	0.208070	17.833167	0.161093
31	presto/tpcds: q32	5.127667	0.277610	5.133167	0.311866	5.249500	0.277173
32	presto/tpcds: q33	9.387333	0.291968	9.155500	0.278627	9.035167	0.252661
33	presto/tpcds: q34	5.117500	0.253888	5.511333	0.418711	5.163000	0.416756
34	presto/tpcds: q35	7.448167	0.271614	7.430167	0.420957	7.769000	0.140697
35	presto/tpcds: q36	7.446333	0.194046	7.321000	0.157862	7.440000	0.326430
36	presto/tpcds: q37	4.250333	0.142681	4.149667	0.084071	4.171500	0.088636
37	presto/tpcds: q38	11.203833	0.160923	11.124000	0.189153	11.203500	0.167477
38	presto/tpcds: q39	5.158500	0.158326	5.175667	0.141537	5.090167	0.066119

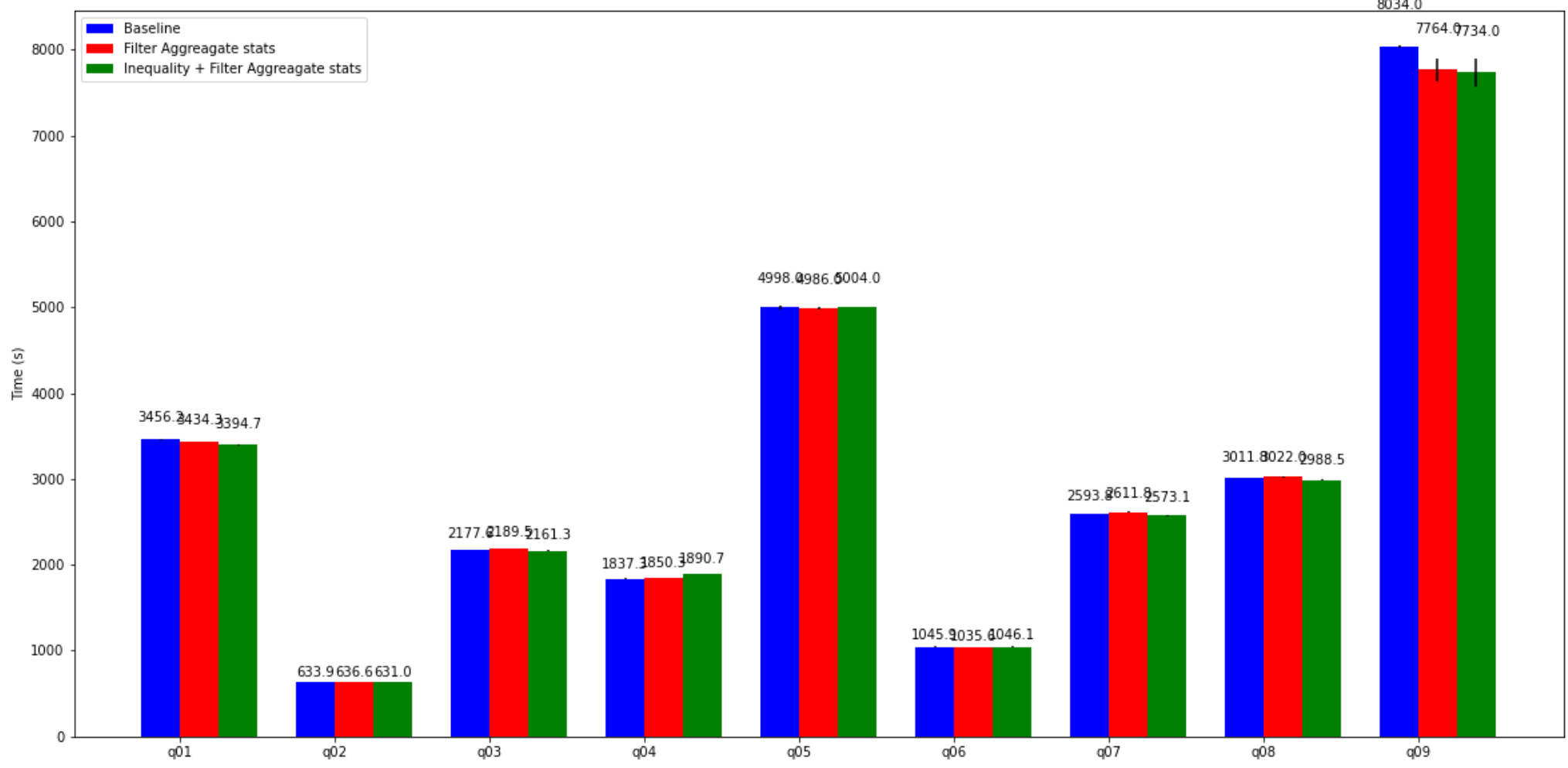
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
39	presto/tpcds: q40	8.973833	0.504230	8.768833	0.536859	9.024667	0.765108
40	presto/tpcds: q41	0.646167	0.050261	0.640667	0.030813	0.656333	0.034022
41	presto/tpcds: q42	6.307167	0.779248	5.882167	0.217437	5.809167	0.086988
42	presto/tpcds: q43	7.067000	0.228060	6.821833	0.228559	6.849167	0.145340
43	presto/tpcds: q44	13.034000	0.467280	12.920167	0.298292	12.666167	0.382108
44	presto/tpcds: q45	2.194833	0.233162	2.142833	0.062774	2.218833	0.208251
45	presto/tpcds: q46	7.295667	0.283997	7.451333	0.321386	7.405667	0.399552
46	presto/tpcds: q47	55.765500	0.136405	55.582833	0.168726	55.833167	0.273111
47	presto/tpcds: q48	14.499000	0.218154	14.549500	0.210985	14.632167	0.116379
48	presto/tpcds: q49	11.883667	0.305592	11.796333	0.226189	12.049667	1.273567
49	presto/tpcds: q50	20.349833	0.305385	20.135167	0.373427	19.993500	0.278049
50	presto/tpcds: q51	15.022000	0.484062	14.698667	0.223513	14.957000	0.181977
51	presto/tpcds: q52	5.841667	0.111285	5.899667	0.083483	6.019833	0.093354
52	presto/tpcds: q53	7.123667	0.249456	6.727333	0.290302	6.605000	0.343543
53	presto/tpcds: q54	11.921667	0.641982	12.119167	0.425455	11.760333	0.257575
54	presto/tpcds: q55	5.901333	0.224625	6.069333	0.825473	5.939333	0.133295
55	presto/tpcds: q56	9.478333	0.301077	10.016000	0.721205	9.201667	0.211475

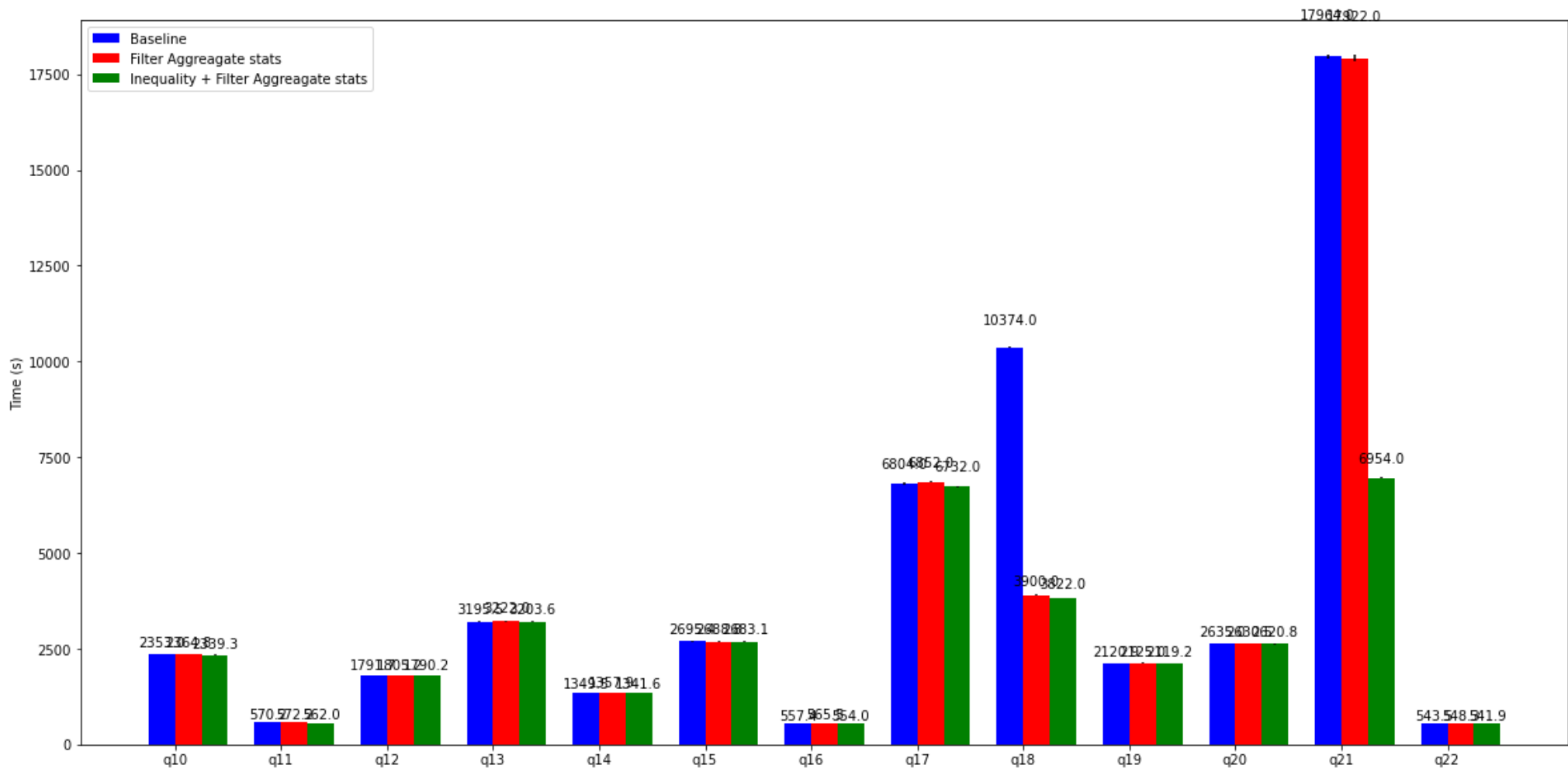
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
56	presto/tpcds: q57	23.219667	0.141286	23.461833	0.096742	23.544000	0.094475
57	presto/tpcds: q58	10.172667	0.817365	9.398167	0.373460	9.157500	0.219635
58	presto/tpcds: q59	33.444667	0.232192	32.403667	0.125933	33.567000	0.255289
59	presto/tpcds: q60	9.720833	0.244931	9.981000	0.240343	9.587833	0.112192
60	presto/tpcds: q61	12.381500	0.220349	12.634000	0.339639	12.396667	0.370136
61	presto/tpcds: q62	3.454833	0.080859	3.437833	0.110221	3.585333	0.071391
62	presto/tpcds: q63	6.724833	0.212130	6.748000	0.155322	6.761667	0.258893
63	presto/tpcds: q64	115.869333	1.290645	70.342500	0.962018	69.548667	0.554592
64	presto/tpcds: q65	19.261667	0.213834	19.247667	0.202166	19.491000	0.137441
65	presto/tpcds: q66	5.925500	0.077498	6.098500	0.265949	6.201167	0.254754
66	presto/tpcds: q67	63.145167	1.034297	62.805000	1.170632	63.494833	0.660143
67	presto/tpcds: q68	8.785667	0.150492	8.891333	0.395945	8.717333	0.215176
68	presto/tpcds: q69	7.018833	0.242903	6.931333	0.274470	6.745000	0.375549
69	presto/tpcds: q70	15.899000	0.447832	15.849667	0.299075	15.874500	0.228299
70	presto/tpcds: q71	11.642167	0.318538	11.688667	0.805670	11.405000	0.306504
71	presto/tpcds: q72	79.067167	6.369627	76.815500	2.675599	76.925333	1.669055
72	presto/tpcds: q73	4.686833	0.309058	4.874167	0.496140	4.700000	0.272286

	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	21.449667	0.212091
74	presto/tpcds:q75	36.499667	0.493384	35.705500	2.266122	36.490667	0.811498
75	presto/tpcds:q76	8.265167	0.370333	8.564333	0.516728	8.188000	0.266483
76	presto/tpcds:q77	11.044833	0.119892	11.138667	0.490761	11.042500	0.208151
77	presto/tpcds:q78	61.973000	0.612261	61.968167	0.816820	62.421833	0.580665
78	presto/tpcds:q79	8.105000	0.152114	8.270500	0.348674	7.987000	0.088050
79	presto/tpcds:q80	47.776167	0.240238	47.376333	0.387821	47.892333	0.268174
80	presto/tpcds:q81	2.935167	0.125249	3.010500	0.047442	2.998333	0.062539
81	presto/tpcds:q82	5.867667	0.330541	5.658167	0.396324	5.457833	0.120142
82	presto/tpcds:q83	1.688833	0.054938	1.963000	0.341431	1.737833	0.124366
83	presto/tpcds:q84	1.944500	0.197242	1.947167	0.233919	1.846000	0.086116
84	presto/tpcds:q85	7.375167	0.210836	7.508500	0.222609	7.397500	0.278349
85	presto/tpcds:q86	3.388833	0.053327	3.397833	0.060374	3.375833	0.103246
86	presto/tpcds:q87	11.277333	0.106605	11.317833	0.169436	11.443667	0.161765
87	presto/tpcds:q88	25.050000	0.253034	24.623333	0.090438	24.568333	0.218873
88	presto/tpcds:q89	8.136167	0.751509	7.863667	0.176511	7.960833	0.386165
89	presto/tpcds:q90	2.822167	0.292533	2.644500	0.394942	2.753167	0.578628

	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	1.162333	0.322196
91	presto/tpcds: q92	3.216667	0.175721	3.280500	0.318156	3.129333	0.233174
92	presto/tpcds: q93	24.408833	0.351481	24.439500	0.728644	24.562167	0.427660
93	presto/tpcds: q94	6.515667	0.839381	6.494667	1.234725	6.066667	0.321416
94	presto/tpcds: q95	12.323833	0.296175	12.518333	0.186086	12.722833	0.486858
95	presto/tpcds: q96	3.479667	0.137950	3.455167	0.182164	3.469167	0.094474
96	presto/tpcds: q97	20.680667	0.137856	20.637000	0.721321	20.102500	0.134546
97	presto/tpcds: q98	6.204833	0.208546	7.115333	2.136352	6.206667	0.165100
98	presto/tpcds: q99	6.176500	0.084149	6.267333	0.219557	6.299833	0.188519

TPC-H Comparison (CPU)

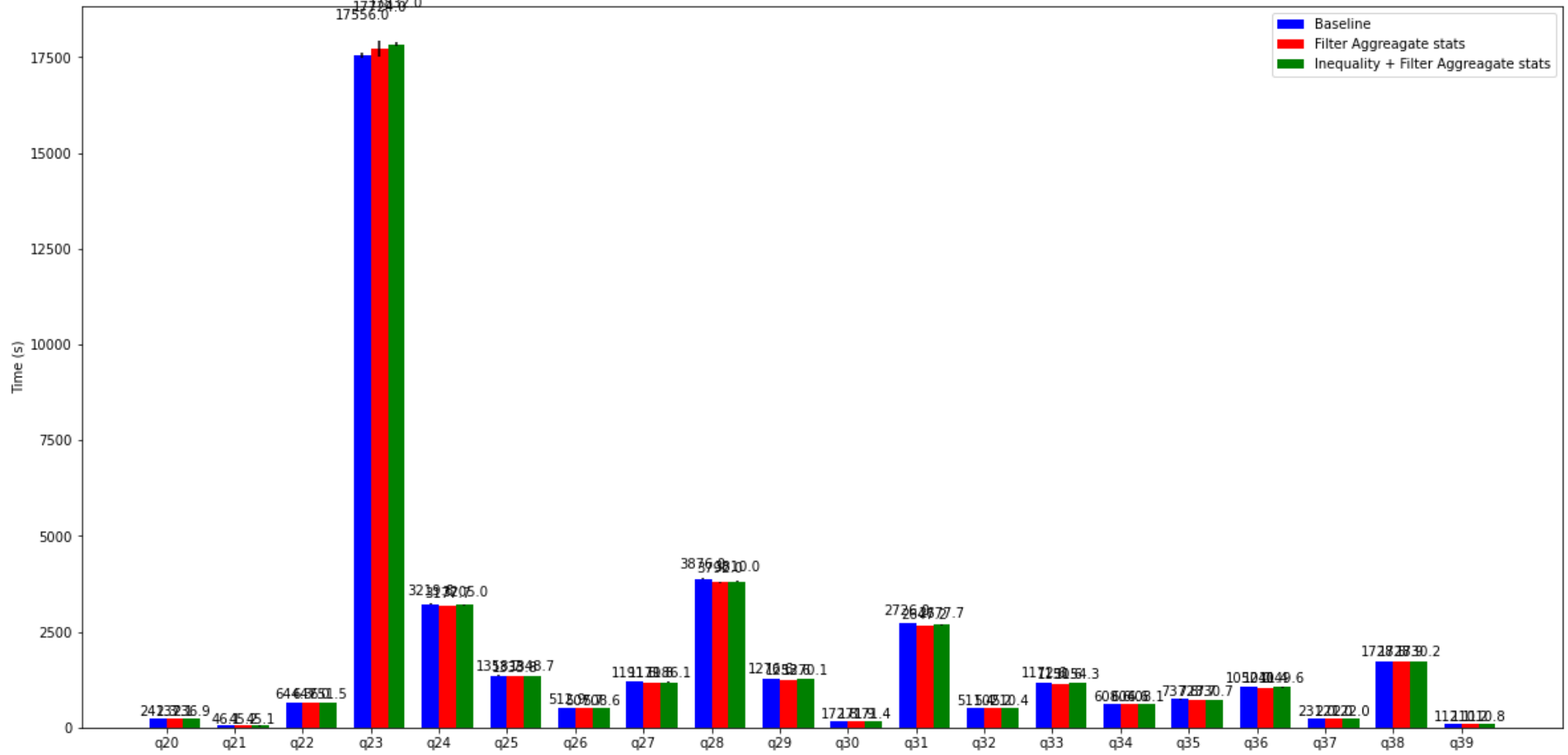


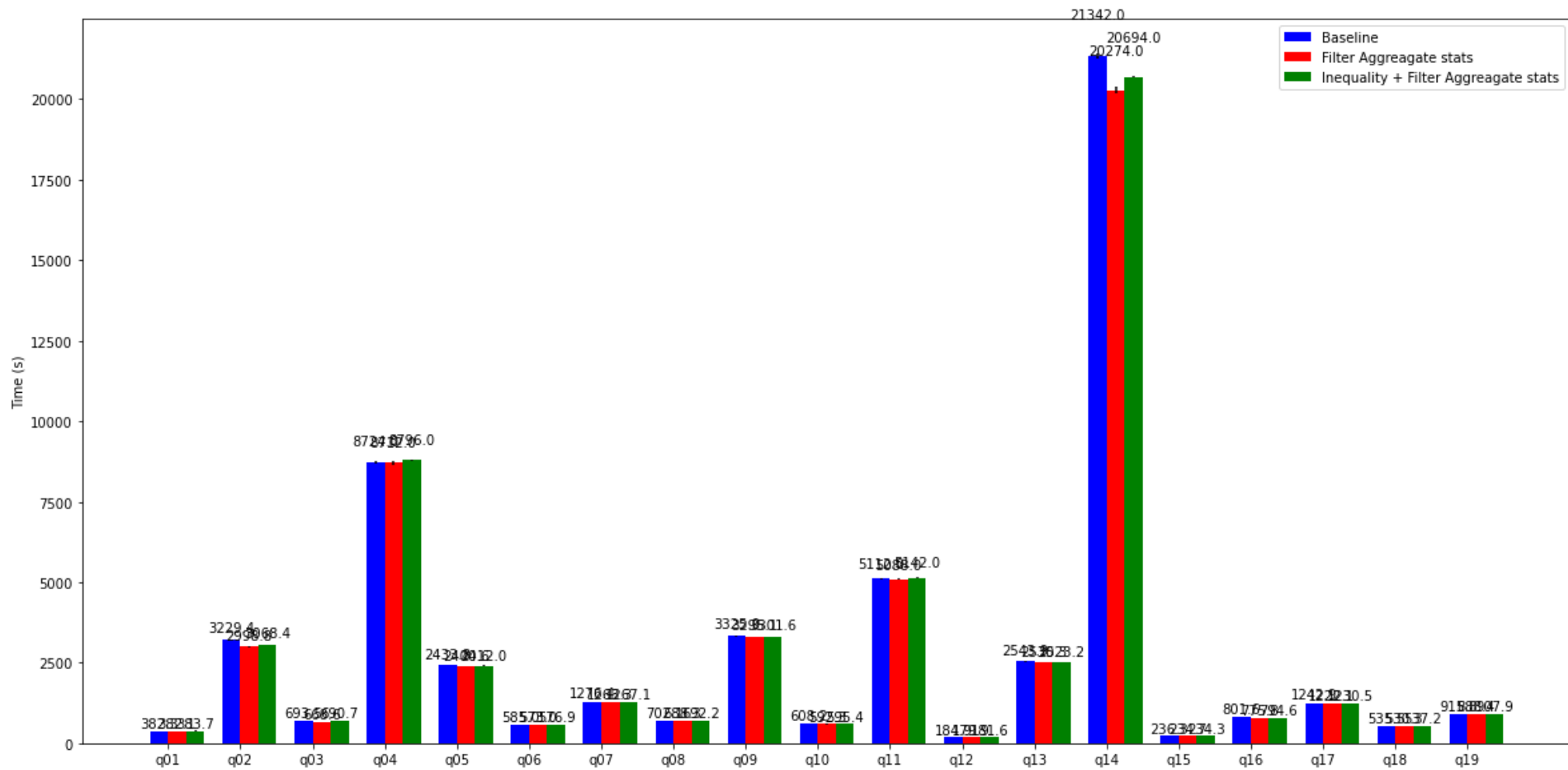


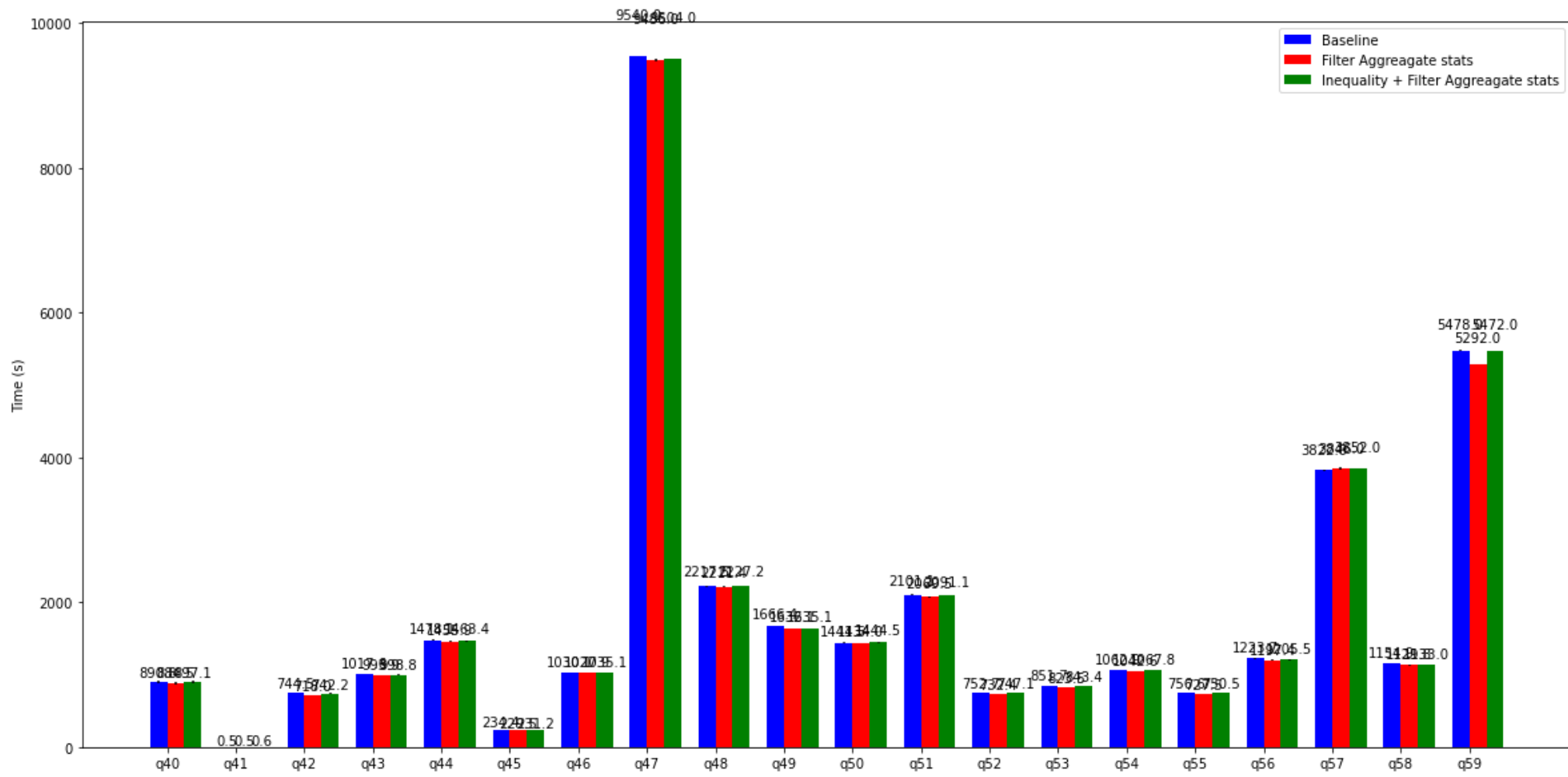
query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0 presto/tpch: q01	3456.2	6.688498	3434.3	5.263839	3394.7	1.836301
1 presto/tpch: q02	633.9	2.034699	636.6	2.308246	631.0	1.402854
2 presto/tpch: q03	2177.6	0.903327	2189.5	4.669475	2161.3	8.454821
3 presto/tpch: q04	1837.3	4.909990	1850.3	1.489966	1890.7	2.126970
4 presto/tpch: q05	4998.0	27.099815	4986.0	19.718012	5004.0	0.000000

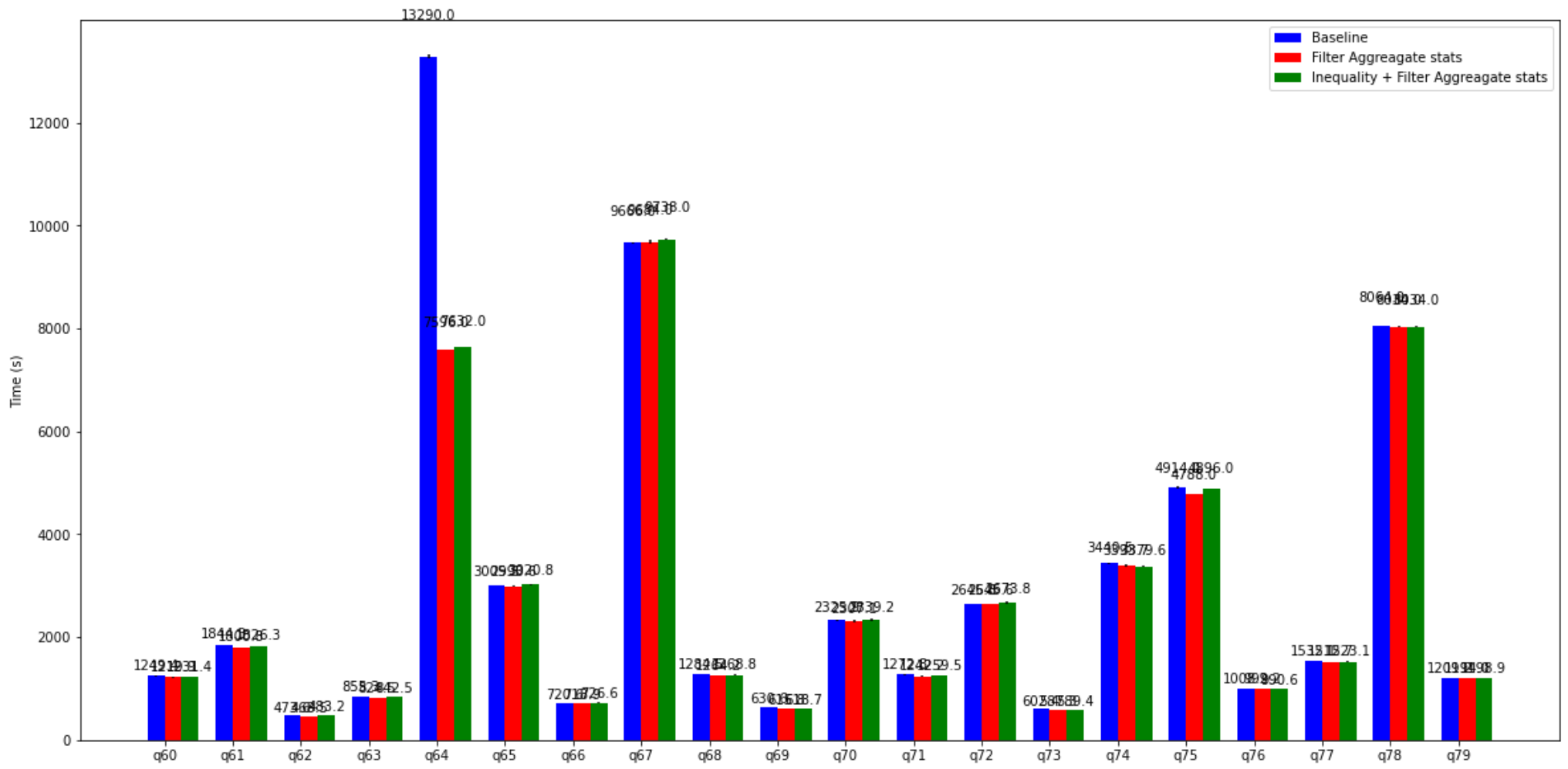
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
5	presto/tpch:q06	1045.9	5.582473	1035.6	2.573713	1046.1	6.020963
6	presto/tpch:q07	2593.8	4.724405	2611.8	6.189023	2573.1	6.580881
7	presto/tpch:q08	3011.8	4.869497	3022.0	10.582249	2988.5	6.876918
8	presto/tpch:q09	8034.0	14.696938	7764.0	132.109046	7734.0	161.666323
9	presto/tpch:q10	2353.0	9.415732	2364.8	8.002000	2339.3	2.022869
10	presto/tpch:q11	570.2	2.328948	572.2	2.955673	562.0	2.031748
11	presto/tpch:q12	1791.7	2.160555	1805.2	5.128743	1790.2	5.239847
12	presto/tpch:q13	3195.5	16.070221	3222.0	17.983993	3203.6	13.558761
13	presto/tpch:q14	1349.5	2.126970	1357.9	5.222643	1341.6	2.683282
14	presto/tpch:q15	2695.4	11.907645	2688.8	7.490794	2683.1	11.000909
15	presto/tpch:q16	557.4	1.138420	565.5	0.985901	554.0	1.682855
16	presto/tpch:q17	6804.0	39.436024	6852.0	18.590320	6732.0	22.768399
17	presto/tpch:q18	10374.0	27.099815	3900.0	18.590320	3822.0	14.696938
18	presto/tpch:q19	2120.9	8.369229	2125.0	9.567445	2119.2	2.112818
19	presto/tpch:q20	2635.0	5.494725	2630.5	1.950385	2620.8	3.737379
20	presto/tpch:q21	17964.0	45.536798	17922.0	83.397842	6954.0	14.696938
21	presto/tpch:q22	543.5	1.672124	548.3	1.440833	541.9	0.797496

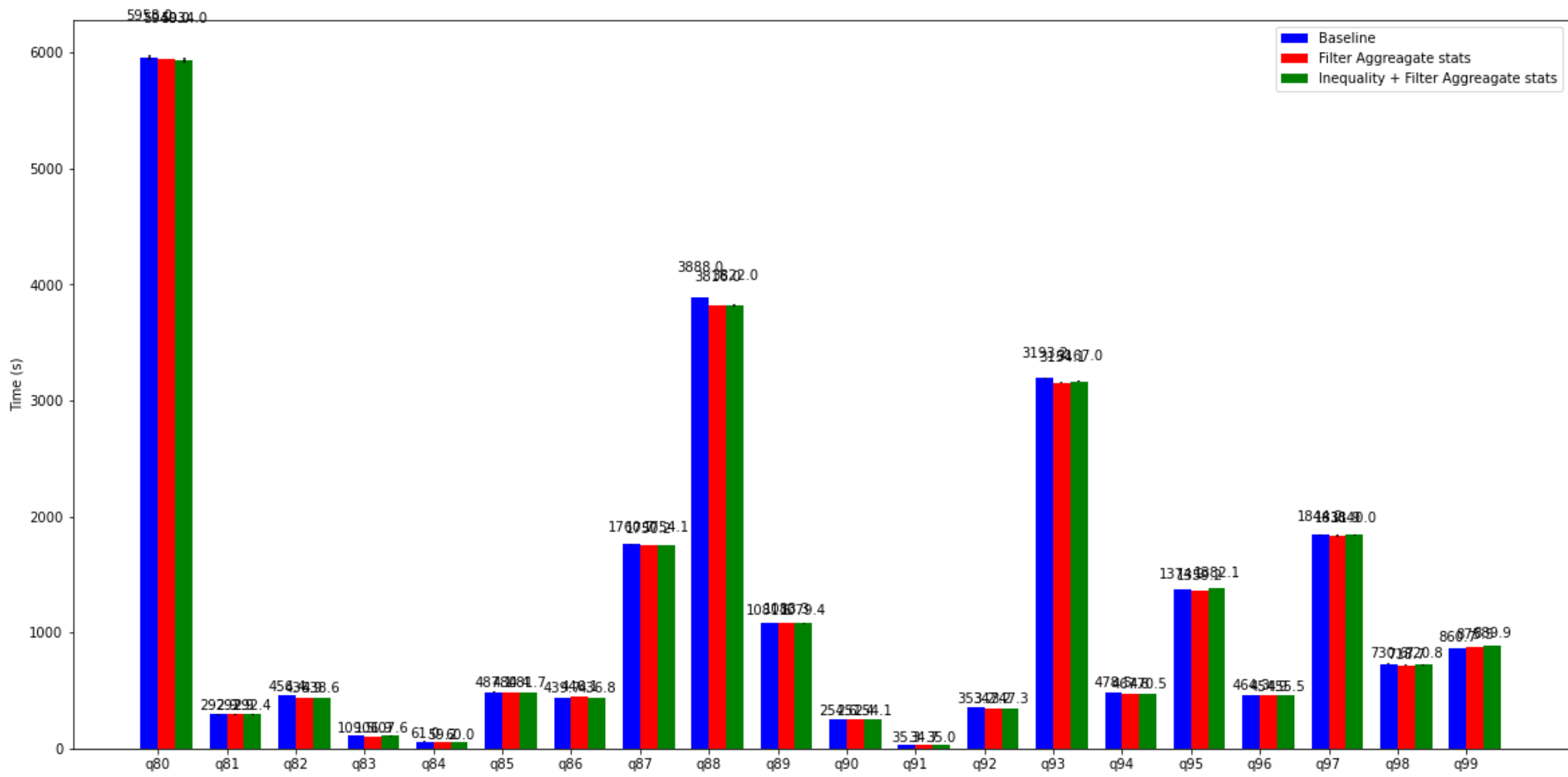
TPC-DS Comparison (CPU)

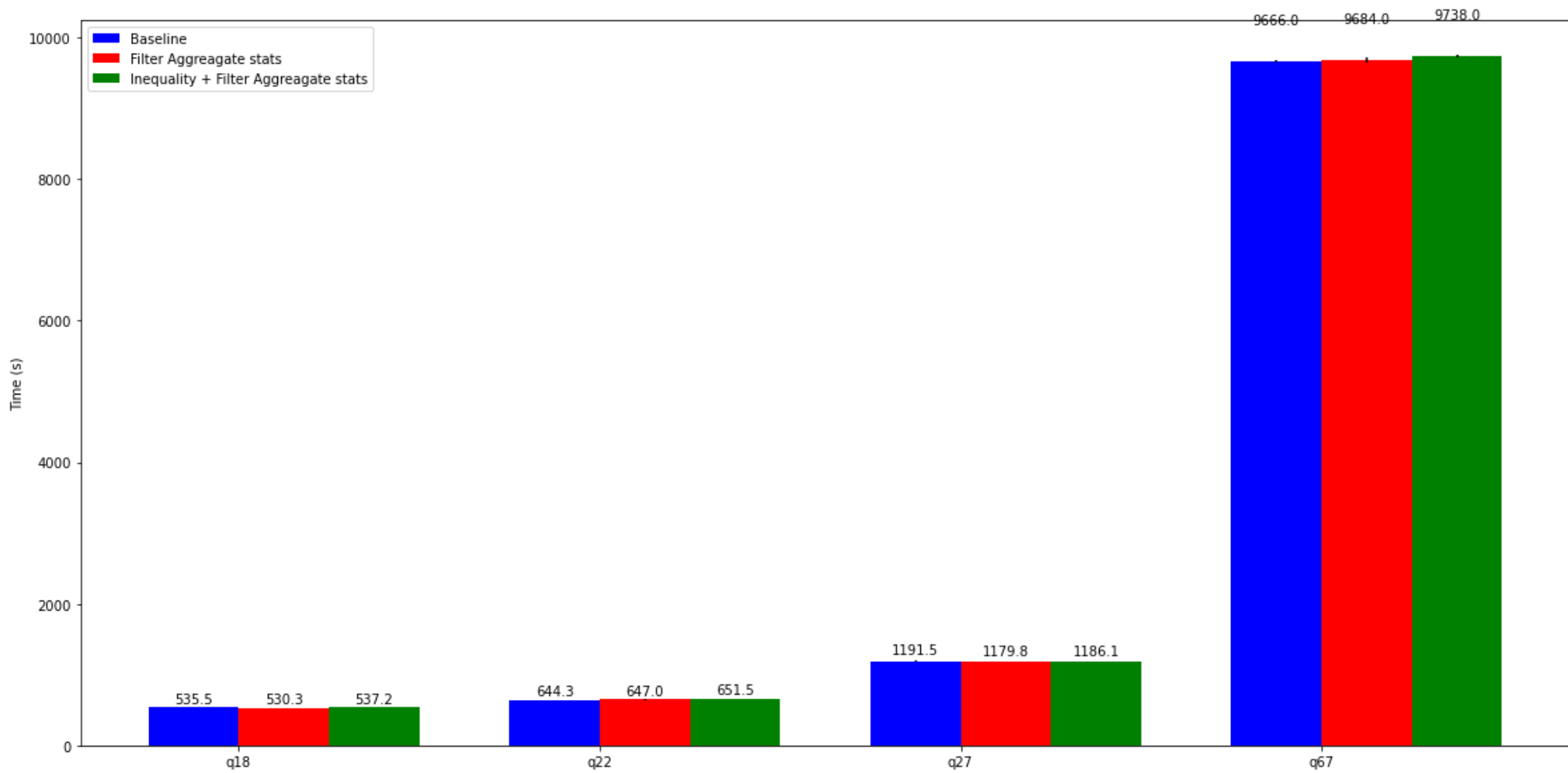












	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0	presto/tpcds: q01	382.300000	0.961249	382.100000	2.058155	383.700000	2.858671
1	presto/tpcds: q02	3229.400000	2.266274	2998.800000	7.896328	3068.400000	2.601538
2	presto/tpcds: q03	693.500000	0.961249	668.600000	0.979796	690.700000	1.337161
3	presto/tpcds: q04	8724.000000	43.598165	8712.000000	60.239522	8796.000000	18.590320
4	presto/tpcds: q05	2433.800000	4.719322	2400.600000	3.197499	2412.000000	4.844791

	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	576.900000	0.629285
6	presto/tpcds:q07	1276.400000	2.066882	1263.300000	1.184905	1267.100000	2.321207
7	presto/tpcds:q08	702.100000	1.164474	688.300000	0.244949	692.200000	0.819756
8	presto/tpcds:q09	3325.000000	9.797959	3295.100000	13.757761	3301.600000	8.533229
9	presto/tpcds:q10	608.200000	0.979796	592.300000	0.701427	595.400000	0.819756
10	presto/tpcds:q11	5112.000000	22.768399	5088.000000	18.590320	5142.000000	14.696938
11	presto/tpcds:q12	184.900000	0.244949	179.900000	0.244949	181.600000	0.309839
12	presto/tpcds:q13	2543.900000	8.894718	2530.300000	6.076512	2523.200000	4.642413
13	presto/tpcds:q14	21342.000000	80.229670	20274.000000	97.709774	20694.000000	27.099815
14	presto/tpcds:q15	236.300000	0.244949	234.700000	0.451664	234.300000	0.328634
15	presto/tpcds:q16	801.600000	1.419859	775.800000	0.848528	794.600000	1.050714
16	presto/tpcds:q17	1242.900000	4.628175	1222.100000	1.440833	1230.500000	1.100909
17	presto/tpcds:q18	535.500000	2.034699	530.300000	1.033441	537.200000	0.979796
18	presto/tpcds:q19	915.800000	4.009988	888.400000	4.468557	907.900000	5.822371
19	presto/tpcds:q20	241.300000	0.244949	237.100000	0.589915	236.900000	1.100909
20	presto/tpcds:q21	46.140000	0.163829	45.215000	0.193365	45.121667	0.161792
21	presto/tpcds:q22	644.300000	0.701427	647.000000	2.066882	651.500000	1.756132

	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	17832.000000	54.199631
23	presto/tpcds: q24	3219.600000	15.050316	3177.700000	6.205481	3205.000000	13.430711
24	presto/tpcds: q25	1358.700000	8.414987	1333.800000	2.517141	1348.700000	3.021920
25	presto/tpcds: q26	512.900000	1.537530	507.700000	2.442130	508.600000	1.239355
26	presto/tpcds: q27	1191.500000	2.875413	1179.800000	1.959592	1186.100000	1.986957
27	presto/tpcds: q28	3876.000000	18.590320	3792.000000	18.590320	3810.000000	14.696938
28	presto/tpcds: q29	1276.600000	5.675209	1253.600000	2.979933	1270.100000	4.076763
29	presto/tpcds: q30	172.800000	7.189993	171.900000	8.038657	171.400000	6.688498
30	presto/tpcds: q31	2726.000000	6.677724	2647.200000	4.585194	2677.700000	5.111164
31	presto/tpcds: q32	511.400000	0.726636	502.200000	1.138420	510.400000	1.922498
32	presto/tpcds: q33	1172.600000	2.135416	1150.600000	1.239355	1154.300000	1.440833
33	presto/tpcds: q34	608.600000	0.619677	604.600000	0.726636	608.100000	0.909945
34	presto/tpcds: q35	737.800000	1.639512	723.700000	4.041287	730.700000	1.628496
35	presto/tpcds: q36	1052.000000	1.549193	1041.400000	0.726636	1049.600000	2.201817
36	presto/tpcds: q37	231.000000	0.000000	221.000000	0.309839	222.000000	0.000000
37	presto/tpcds: q38	1728.500000	2.747362	1728.900000	6.869934	1730.200000	8.872429
38	presto/tpcds: q39	112.100000	0.701427	110.200000	0.489898	110.800000	0.309839

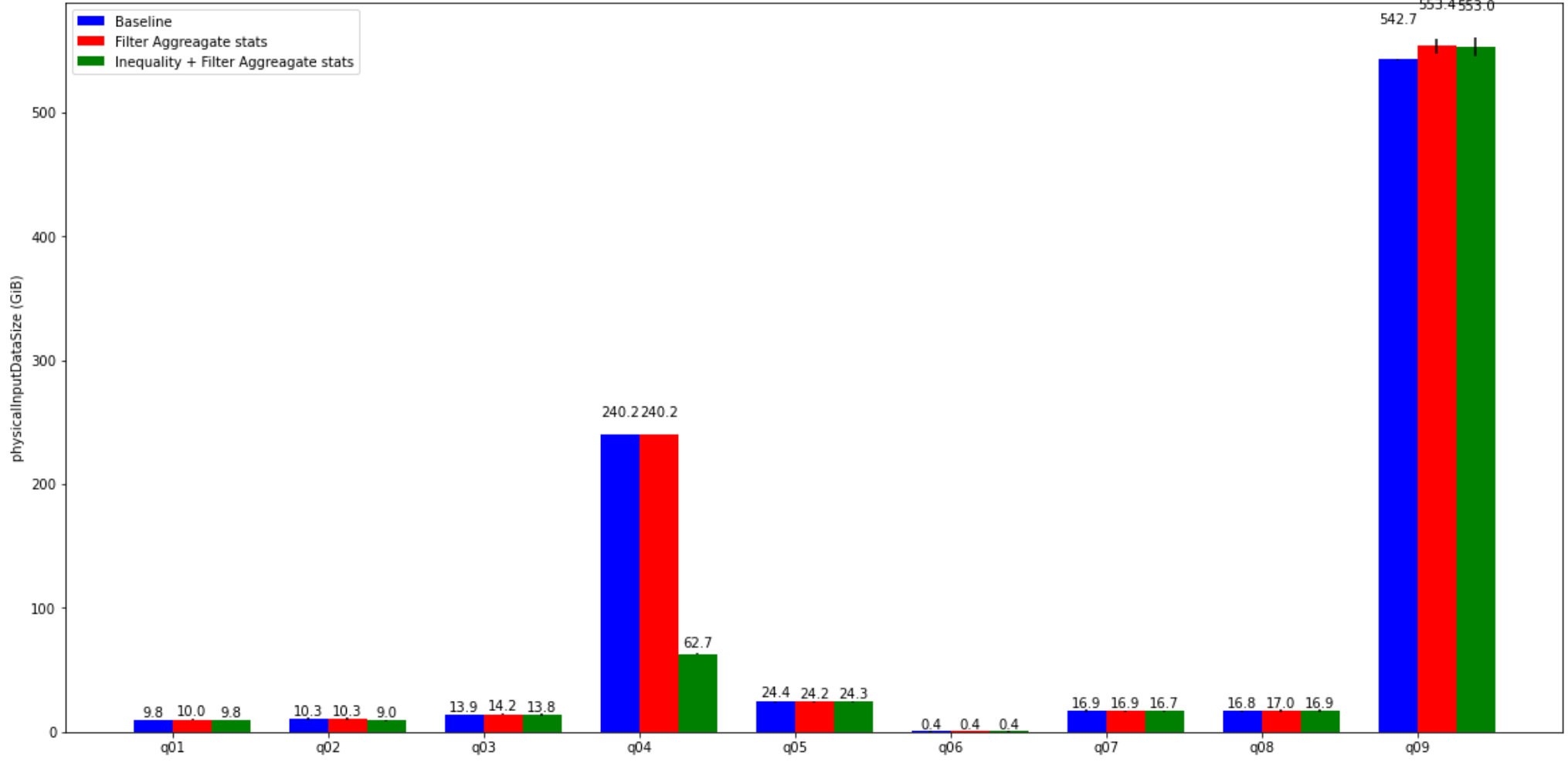
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39	presto/tpcds:q40	890.800000	18.280481	884.500000	20.865570	897.100000	15.541815
40	presto/tpcds:q41	0.533000	0.034595	0.549500	0.020443	0.550333	0.039707
41	presto/tpcds:q42	744.500000	0.701427	718.000000	0.903327	742.200000	2.212691
42	presto/tpcds:q43	1017.600000	1.200000	993.900000	1.354991	998.800000	2.536139
43	presto/tpcds:q44	1478.100000	7.975713	1455.900000	5.936666	1463.400000	4.800000
44	presto/tpcds:q45	234.400000	0.726636	229.500000	0.629285	231.200000	0.489898
45	presto/tpcds:q46	1030.100000	2.667583	1027.900000	2.226208	1035.100000	1.672124
46	presto/tpcds:q47	9540.000000	0.000000	9486.000000	19.718012	9504.000000	0.000000
47	presto/tpcds:q48	2217.500000	4.776191	2211.400000	8.749857	2227.200000	6.327085
48	presto/tpcds:q49	1666.400000	2.101428	1632.100000	3.648013	1635.100000	5.646592
49	presto/tpcds:q50	1441.500000	7.718808	1434.000000	3.943602	1444.500000	8.083316
50	presto/tpcds:q51	2101.100000	6.918670	2069.500000	9.818146	2091.100000	2.193627
51	presto/tpcds:q52	752.700000	2.594610	732.400000	2.647263	747.100000	1.164474
52	presto/tpcds:q53	851.700000	0.501996	823.500000	2.481129	843.400000	1.639512
53	presto/tpcds:q54	1062.900000	6.162792	1042.600000	3.919184	1067.800000	3.692154
54	presto/tpcds:q55	756.600000	0.536656	727.500000	1.407125	750.500000	1.537530
55	presto/tpcds:q56	1223.700000	6.068608	1197.400000	7.461903	1205.500000	2.289978

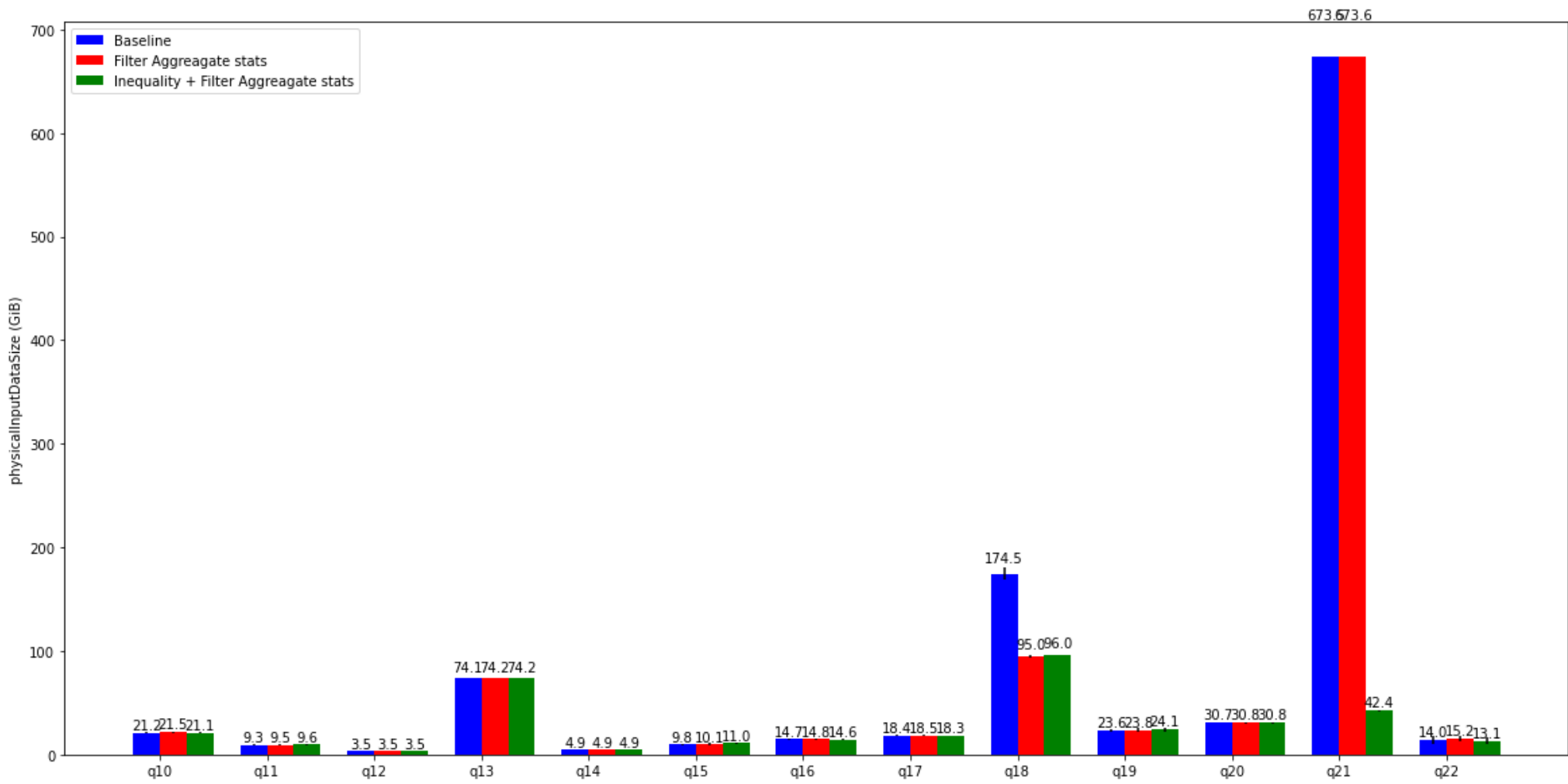
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
56	presto/tpcds:q57	3822.000000	14.696938	3846.000000	14.696938	3852.000000	0.000000
57	presto/tpcds:q58	1154.900000	3.628223	1129.800000	5.433231	1133.000000	2.419917
58	presto/tpcds:q59	5478.000000	14.696938	5292.000000	0.000000	5472.000000	0.000000
59	presto/tpcds:q60	1249.400000	7.633610	1219.900000	10.450455	1231.400000	3.144519
60	presto/tpcds:q61	1844.300000	5.809991	1800.800000	6.067619	1826.300000	3.568193
61	presto/tpcds:q62	473.600000	0.619677	468.500000	0.701427	483.200000	1.402854
62	presto/tpcds:q63	855.300000	0.827043	824.500000	0.883176	842.500000	0.701427
63	presto/tpcds:q64	13290.000000	42.085627	7596.000000	0.000000	7632.000000	0.000000
64	presto/tpcds:q65	3005.300000	3.547957	2993.600000	6.634456	3020.800000	7.305888
65	presto/tpcds:q66	720.600000	4.392721	718.900000	4.164133	726.600000	5.866515
66	presto/tpcds:q67	9666.000000	19.718012	9684.000000	32.199379	9738.000000	19.718012
67	presto/tpcds:q68	1284.500000	3.069202	1264.200000	1.003992	1268.800000	3.788403
68	presto/tpcds:q69	630.600000	1.258571	615.800000	1.350555	618.700000	0.883176
69	presto/tpcds:q70	2325.900000	24.641672	2307.100000	22.595132	2339.200000	20.114472
70	presto/tpcds:q71	1272.800000	5.388877	1242.200000	4.304416	1259.500000	2.694439
71	presto/tpcds:q72	2645.800000	10.073331	2645.600000	8.608833	2673.800000	13.743362
72	presto/tpcds:q73	602.400000	1.200000	587.300000	1.583667	589.400000	0.819756

	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	3379.600000	9.878461
74	presto/tpcds:q75	4914.000000	19.718012	4788.000000	0.000000	4896.000000	0.000000
75	presto/tpcds:q76	1008.200000	3.429286	999.200000	7.216647	990.600000	2.244994
76	presto/tpcds:q77	1532.100000	1.407125	1512.700000	2.022869	1523.100000	5.429917
77	presto/tpcds:q78	8064.000000	0.000000	8034.000000	14.696938	8034.000000	14.696938
78	presto/tpcds:q79	1209.200000	0.726636	1194.000000	1.073313	1198.900000	0.797496
79	presto/tpcds:q80	5958.000000	19.718012	5940.000000	0.000000	5934.000000	27.099815
80	presto/tpcds:q81	292.900000	9.047210	292.900000	9.640539	292.400000	9.191300
81	presto/tpcds:q82	456.400000	1.117139	436.900000	0.883176	438.600000	0.929516
82	presto/tpcds:q83	109.500000	0.328634	106.900000	0.451664	107.600000	0.489898
83	presto/tpcds:q84	61.000000	0.309839	59.226667	0.134561	59.966667	0.319291
84	presto/tpcds:q85	487.100000	4.198571	480.400000	3.408225	481.700000	3.914588
85	presto/tpcds:q86	439.700000	1.986957	446.100000	1.407125	436.800000	2.078461
86	presto/tpcds:q87	1760.700000	6.558963	1750.200000	1.819890	1754.100000	2.807846
87	presto/tpcds:q88	3888.000000	0.000000	3816.000000	0.000000	3822.000000	14.696938
88	presto/tpcds:q89	1081.600000	1.453272	1083.300000	1.122497	1079.400000	2.517141
89	presto/tpcds:q90	254.600000	0.489898	251.400000	0.758947	254.100000	0.985901

	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	35.043333	0.200765
91	presto/tpcds: q92	353.200000	0.726636	347.200000	1.179830	347.300000	0.589915
92	presto/tpcds: q93	3193.200000	5.841917	3154.100000	7.143948	3167.000000	4.236980
93	presto/tpcds: q94	478.500000	0.629285	467.800000	1.117139	470.500000	1.489966
94	presto/tpcds: q95	1374.900000	2.171635	1359.200000	1.806654	1382.100000	2.481129
95	presto/tpcds: q96	464.300000	0.701427	454.900000	1.033441	455.500000	0.961249
96	presto/tpcds: q97	1844.200000	5.402222	1831.900000	8.975299	1840.000000	8.241359
97	presto/tpcds: q98	730.600000	0.979796	718.700000	1.913113	720.800000	1.594992
98	presto/tpcds: q99	860.700000	0.909945	875.500000	1.756132	889.900000	1.164474

TPC-H Comparison (Peak memory)

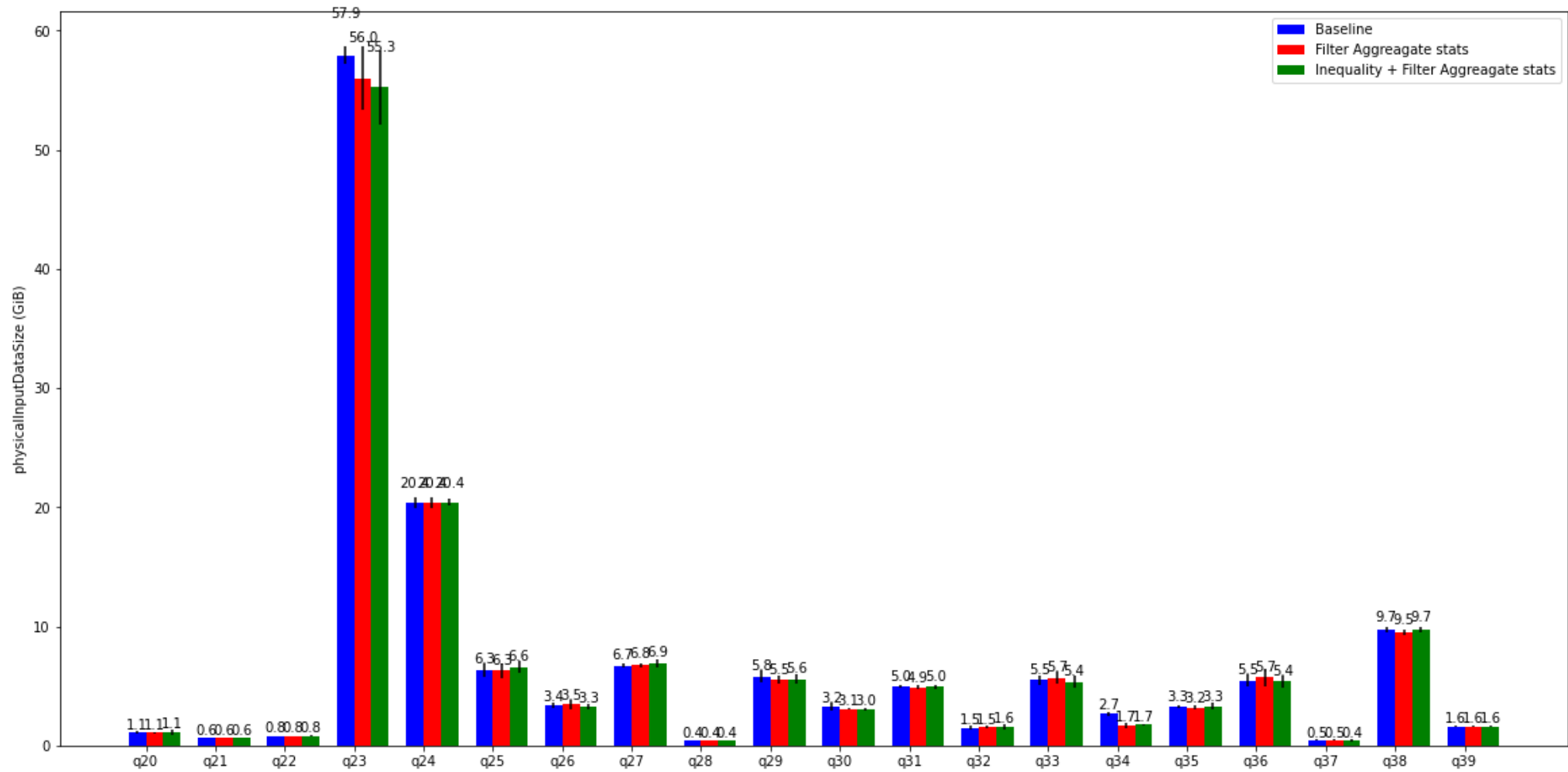


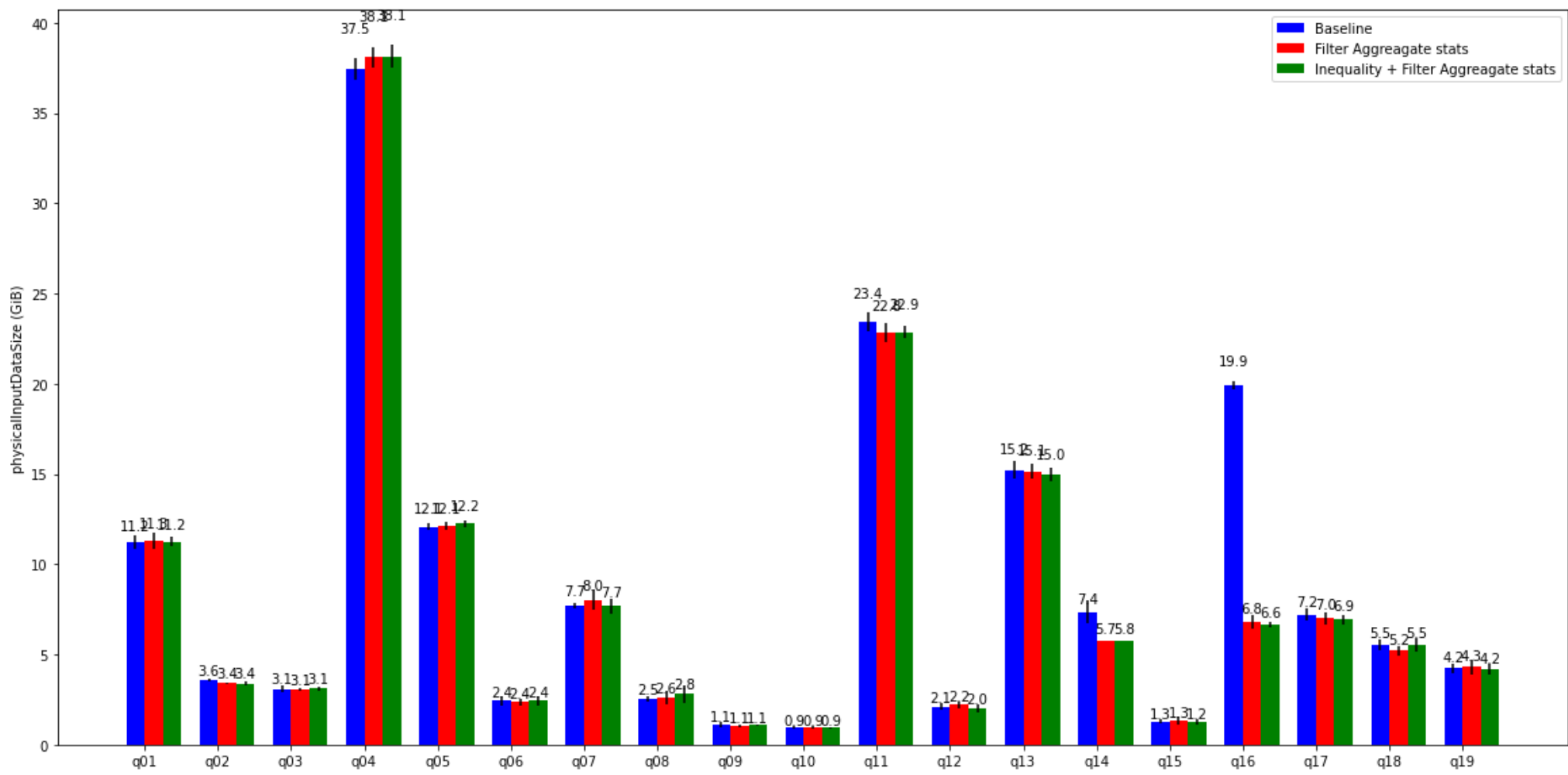


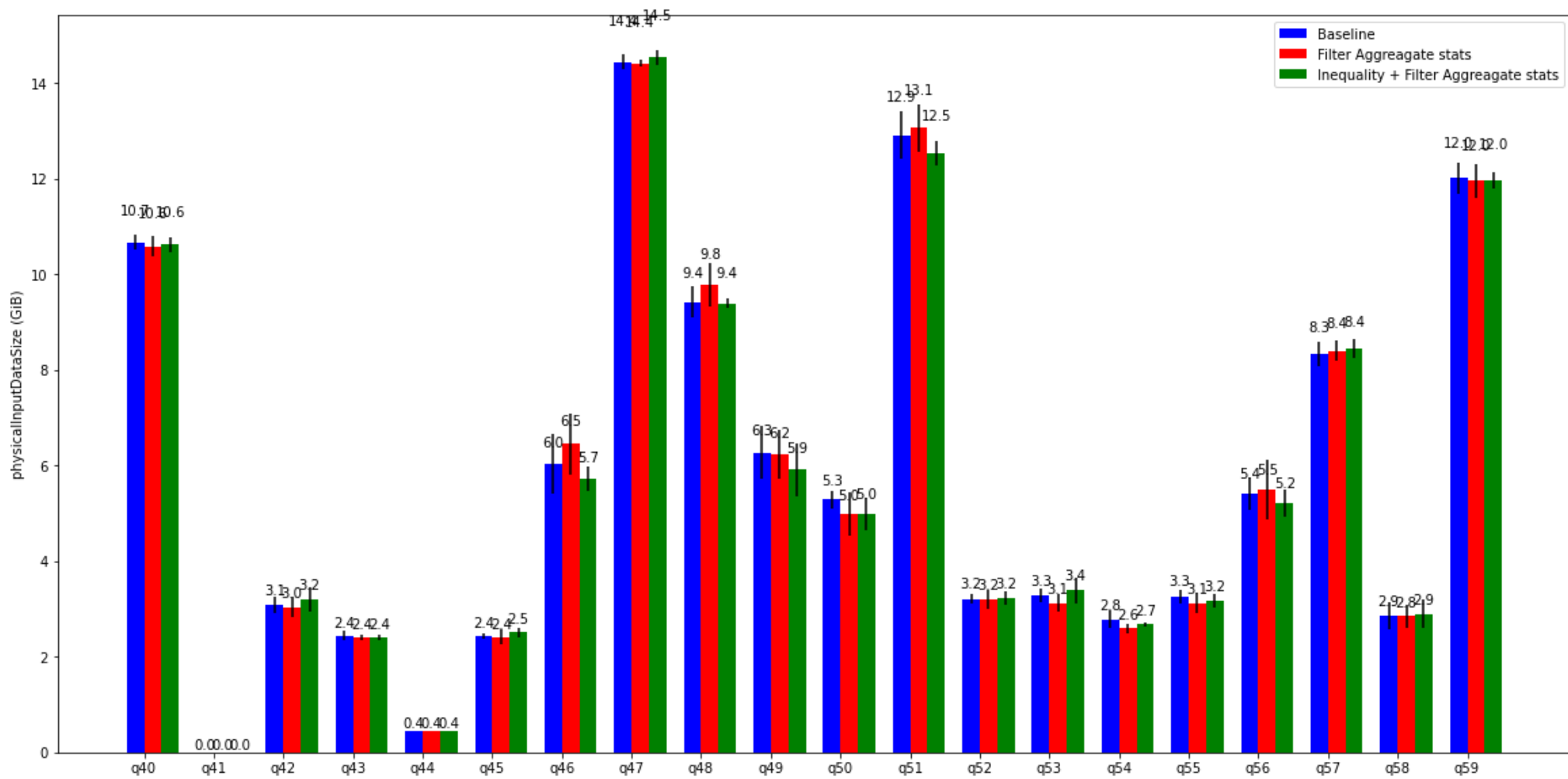
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0	presto/tpch: q01	1.029943e+07	2.017404e+05	1.044627e+07	3.302674e+05	1.025099e+07	2.595796e+05
1	presto/tpch: q02	1.078968e+07	1.309694e+06	1.078228e+07	1.134900e+06	9.487966e+06	2.416805e+05
2	presto/tpch: q03	1.458108e+07	4.404208e+05	1.494074e+07	4.504733e+05	1.451651e+07	7.950178e+05
3	presto/tpch: q04	2.518483e+08	3.979495e+05	2.518466e+08	2.515053e+05	6.573001e+07	5.016378e+05
4	presto/tpch: q05	2.558689e+07	3.547366e+05	2.536179e+07	3.604962e+05	2.548602e+07	3.597208e+05

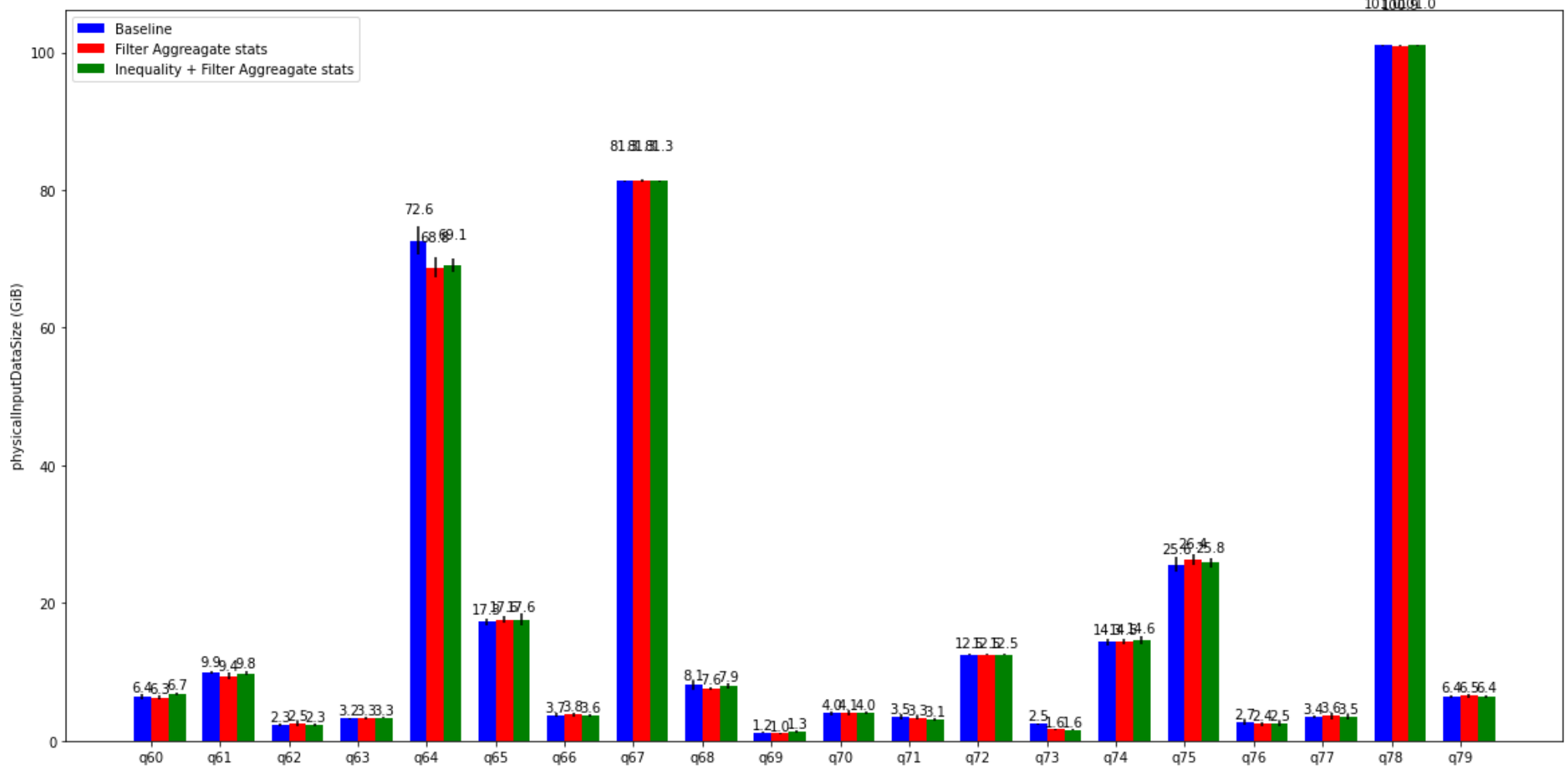
	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
5	presto/tpch: q06	4.210345e+05	1.573759e+05	4.379918e+05	4.726489e+04	3.843079e+05	5.841390e+04
6	presto/tpch: q07	1.770231e+07	1.022358e+06	1.774670e+07	5.231816e+05	1.747743e+07	8.138022e+05
7	presto/tpch: q08	1.766415e+07	6.432645e+05	1.779930e+07	1.522221e+06	1.767384e+07	8.467718e+05
8	presto/tpch: q09	5.691077e+08	3.130648e+05	5.802793e+08	6.506206e+06	5.798245e+08	7.664401e+06
9	presto/tpch: q10	2.219646e+07	3.952421e+05	2.249400e+07	4.461438e+05	2.208437e+07	3.882429e+05
10	presto/tpch: q11	9.740522e+06	9.865253e+05	9.939411e+06	3.397215e+05	1.011564e+07	4.088381e+05
11	presto/tpch: q12	3.653397e+06	8.044107e+04	3.625800e+06	1.313079e+05	3.630297e+06	3.995043e+04
12	presto/tpch: q13	7.765428e+07	8.104534e+04	7.781003e+07	8.837292e+04	7.776991e+07	6.759571e+04
13	presto/tpch: q14	5.120874e+06	6.344158e+04	5.152619e+06	1.324080e+05	5.175235e+06	7.190859e+04
14	presto/tpch: q15	1.026192e+07	1.014468e+06	1.054170e+07	9.204592e+05	1.154854e+07	9.536771e+05
15	presto/tpch: q16	1.542689e+07	5.366907e+05	1.549016e+07	3.809082e+05	1.533115e+07	3.670967e+05
16	presto/tpch: q17	1.930675e+07	5.809520e+05	1.938411e+07	8.426773e+05	1.921999e+07	2.443195e+05
17	presto/tpch: q18	1.829587e+08	6.448335e+06	9.961467e+07	1.245871e+06	1.006484e+08	5.799851e+05
18	presto/tpch: q19	2.472415e+07	1.582019e+06	2.493278e+07	1.860103e+06	2.524453e+07	1.882686e+06
19	presto/tpch: q20	3.220199e+07	2.006134e+05	3.225076e+07	4.802805e+05	3.232051e+07	6.699158e+05
20	presto/tpch: q21	7.062653e+08	1.771996e+04	7.062773e+08	3.740768e+04	4.442557e+07	8.412288e+05
21	presto/tpch: q22	1.466655e+07	4.194037e+06	1.596548e+07	2.461784e+06	1.375643e+07	3.042019e+06

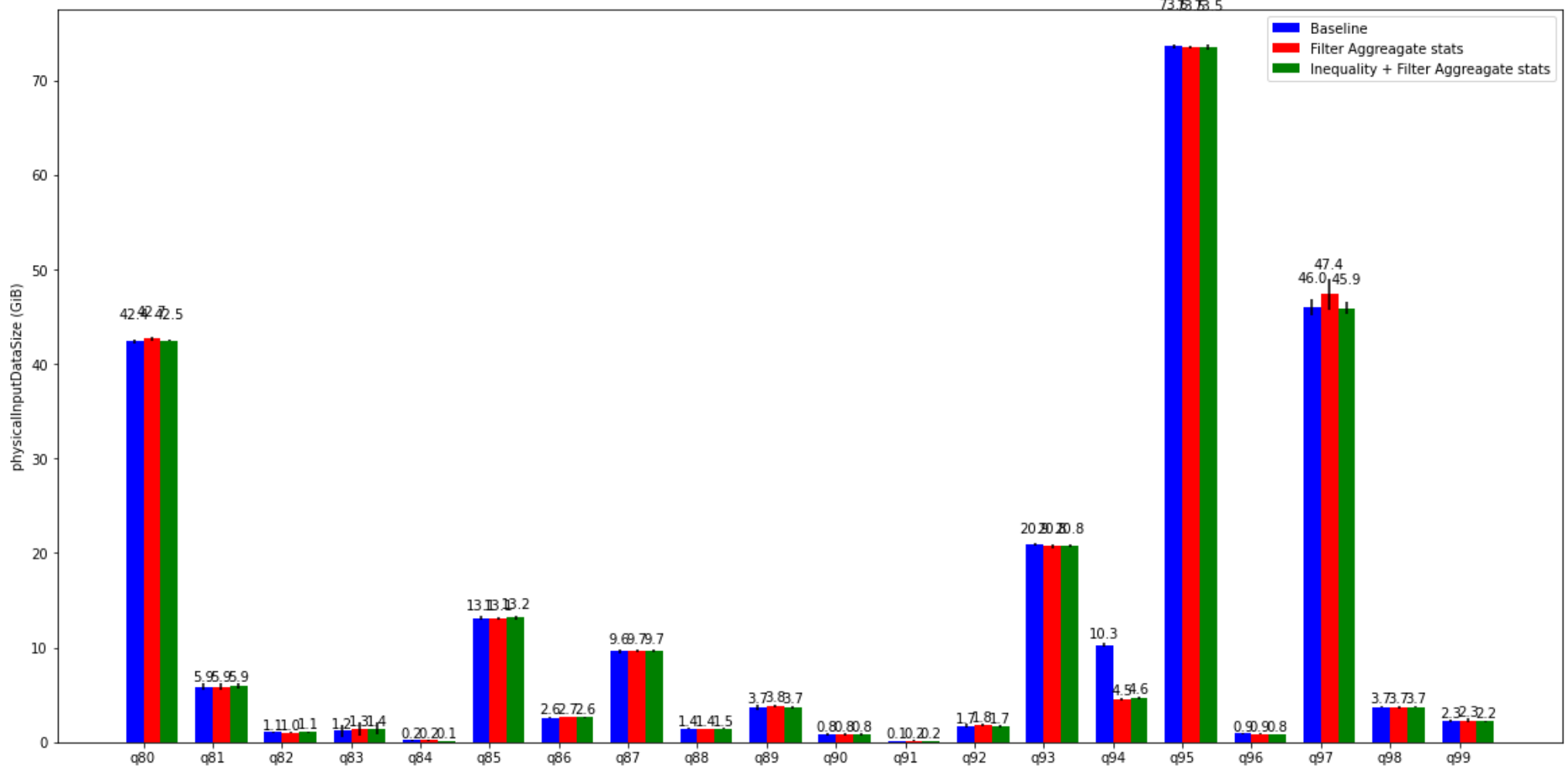
TPC-DS Comparison (Peak memory)

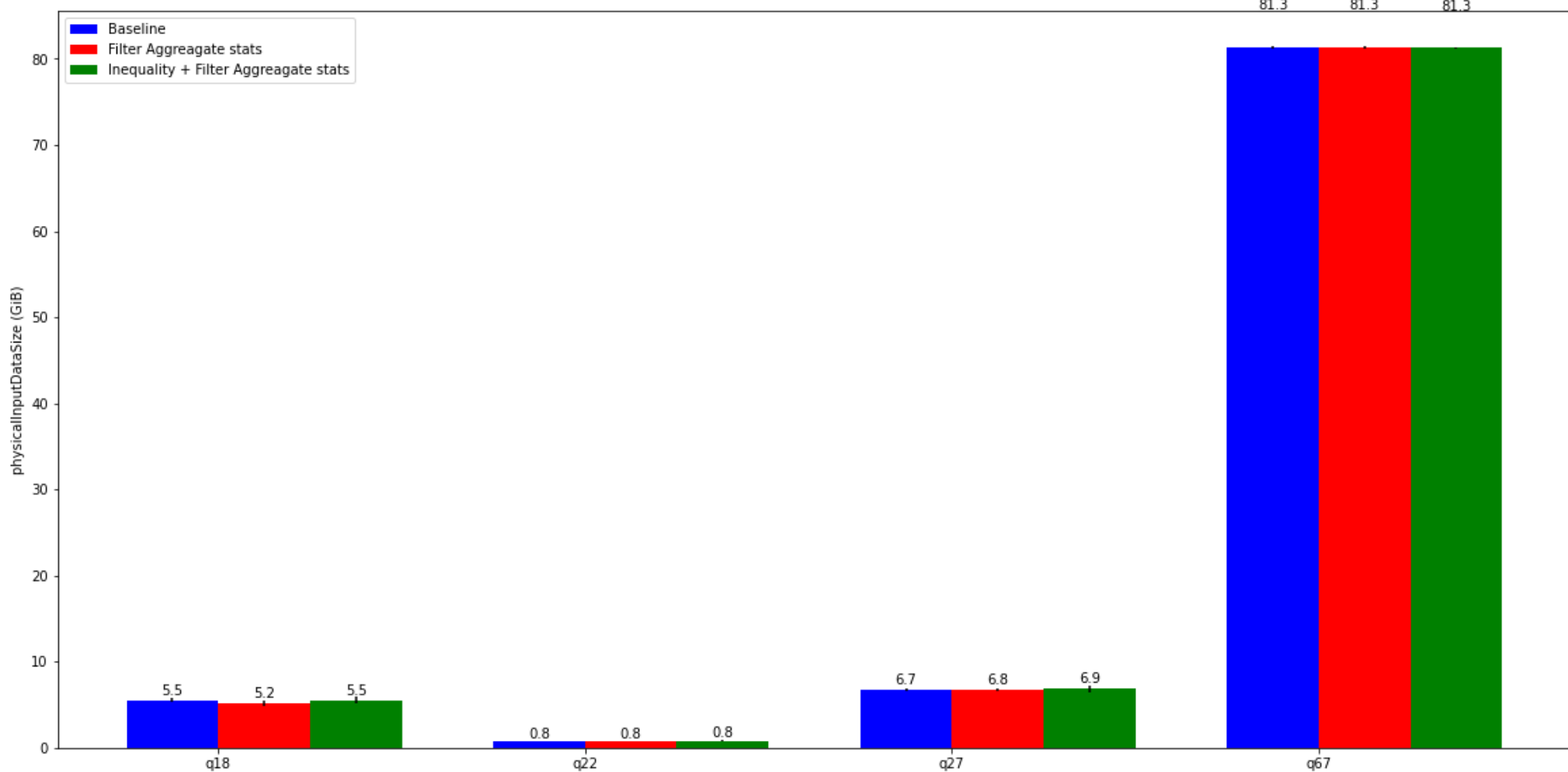












	query	Baseline mean	Baseline std.dev	Filter Aggregate stats mean	Filter Aggregate stats std.dev	Inequality + Filter Aggregate stats mean	Inequality + Filter Aggregate stats std.dev
0	presto/tpcds: q01	1.174296e+07	3.894140e+05	1.184194e+07	4.458399e+05	1.177773e+07	2.689318e+05
1	presto/tpcds: q02	3.725083e+06	7.984571e+04	3.585642e+06	4.501753e+04	3.550593e+06	9.519425e+04
2	presto/tpcds: q03	3.234906e+06	2.201179e+05	3.200632e+06	1.089992e+05	3.276161e+06	1.112920e+05
3	presto/tpcds: q04	3.927975e+07	6.466437e+05	3.995049e+07	5.978885e+05	3.998430e+07	6.823212e+05
4	presto/tpcds: q05	1.266987e+07	1.782777e+05	1.267286e+07	2.330872e+05	1.283416e+07	1.925017e+05

	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	2.538466e+06	2.864381e+05	2.468044e+06	1.832230e+05	2.545386e+06	3.005673e+05
6	presto/tpcds: q07	8.095610e+06	1.487689e+05	8.407283e+06	5.930587e+05	8.039923e+06	4.155797e+05
7	presto/tpcds: q08	2.663706e+06	1.709631e+05	2.757842e+06	3.782858e+05	2.947048e+06	4.902673e+05
8	presto/tpcds: q09	1.155360e+06	1.523431e+05	1.109231e+06	8.875693e+04	1.126342e+06	6.788174e+04
9	presto/tpcds: q10	9.759123e+05	6.916751e+04	9.738925e+05	7.949608e+04	9.731548e+05	6.067040e+04
10	presto/tpcds: q11	2.456935e+07	5.179093e+05	2.393537e+07	5.340837e+05	2.397583e+07	3.685059e+05
11	presto/tpcds: q12	2.210877e+06	2.102129e+05	2.314584e+06	1.958748e+05	2.113446e+06	2.578222e+05
12	presto/tpcds: q13	1.596059e+07	5.361005e+05	1.588029e+07	4.580255e+05	1.568633e+07	3.746614e+05
13	presto/tpcds: q14	7.715778e+06	6.910931e+05	6.023978e+06	2.525845e+04	6.044708e+06	1.874783e+04
14	presto/tpcds: q15	1.355333e+06	1.526397e+05	1.384426e+06	2.233642e+05	1.289644e+06	1.604543e+05
15	presto/tpcds: q16	2.088324e+07	2.503267e+05	7.127036e+06	3.749598e+05	6.965842e+06	1.856864e+05
16	presto/tpcds: q17	7.553729e+06	3.521969e+05	7.348916e+06	3.550130e+05	7.275078e+06	2.667697e+05
17	presto/tpcds: q18	5.798122e+06	2.833250e+05	5.446305e+06	2.955403e+05	5.791333e+06	3.654693e+05
18	presto/tpcds: q19	4.442763e+06	2.642311e+05	4.502410e+06	3.988051e+05	4.377791e+06	2.927355e+05
19	presto/tpcds: q20	1.142369e+06	1.300658e+05	1.123666e+06	9.645485e+04	1.195672e+06	2.139335e+05
20	presto/tpcds: q21	6.656270e+05	3.685909e+03	6.608331e+05	8.093331e+03	6.624404e+05	1.486231e+04
21	presto/tpcds: q22	8.567255e+05	8.523716e+03	8.550328e+05	6.376330e+03	8.620360e+05	1.272996e+04

	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	6.075920e+07	7.714794e+05	5.870691e+07	2.780335e+06	5.796628e+07	3.261862e+06
23	presto/tpcds: q24	2.137216e+07	4.810050e+05	2.138318e+07	4.757487e+05	2.142390e+07	2.527627e+05
24	presto/tpcds: q25	6.621618e+06	6.422763e+05	6.594841e+06	6.381855e+05	6.906267e+06	5.557239e+05
25	presto/tpcds: q26	3.547748e+06	1.965214e+05	3.636316e+06	4.354088e+05	3.447576e+06	2.162301e+05
26	presto/tpcds: q27	7.038394e+06	2.197393e+05	7.080526e+06	1.665102e+05	7.185969e+06	3.732509e+05
27	presto/tpcds: q28	4.091401e+05	2.309135e+03	4.109748e+05	3.285805e+03	4.112147e+05	2.564674e+03
28	presto/tpcds: q29	6.073428e+06	5.264224e+05	5.764576e+06	3.368876e+05	5.853834e+06	3.640865e+05
29	presto/tpcds: q30	3.397638e+06	3.302290e+05	3.223507e+06	4.099612e+04	3.173688e+06	9.693961e+04
30	presto/tpcds: q31	5.245833e+06	1.255446e+05	5.144367e+06	1.602154e+05	5.195946e+06	1.709448e+05
31	presto/tpcds: q32	1.563416e+06	1.744978e+05	1.610939e+06	1.393742e+05	1.654467e+06	2.028434e+05
32	presto/tpcds: q33	5.759452e+06	4.008815e+05	5.977634e+06	5.030889e+05	5.610269e+06	4.895610e+05
33	presto/tpcds: q34	2.800328e+06	1.915416e+05	1.783656e+06	2.275042e+05	1.825798e+06	8.340465e+04
34	presto/tpcds: q35	3.453792e+06	1.089230e+05	3.352578e+06	1.668698e+05	3.475452e+06	2.579580e+05
35	presto/tpcds: q36	5.737804e+06	5.089200e+05	5.983201e+06	7.993177e+05	5.661742e+06	5.447710e+05
36	presto/tpcds: q37	4.795471e+05	8.166720e+04	4.737719e+05	5.894554e+04	4.389632e+05	8.385682e+04
37	presto/tpcds: q38	1.019510e+07	2.300519e+05	9.959877e+06	2.609128e+05	1.017223e+07	2.664564e+05
38	presto/tpcds: q39	1.677643e+06	4.109972e+04	1.677423e+06	9.435773e+04	1.683966e+06	4.113227e+04

	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	1.118059e+07	1.631795e+05	1.110297e+07	2.092431e+05	1.113740e+07	1.537337e+05
40	presto/tpcds:q41	9.000833e+00	9.611515e-01	9.157167e+00	8.425842e-01	8.653167e+00	2.048429e+00
41	presto/tpcds:q42	3.236597e+06	1.675760e+05	3.187298e+06	2.269704e+05	3.349510e+06	2.710261e+05
42	presto/tpcds:q43	2.563724e+06	9.270386e+04	2.518624e+06	5.155920e+04	2.524130e+06	6.699726e+04
43	presto/tpcds:q44	4.565435e+05	1.052017e+03	4.565545e+05	4.402813e+02	4.570799e+05	6.713699e+02
44	presto/tpcds:q45	2.557617e+06	6.318861e+04	2.535258e+06	1.623922e+05	2.627215e+06	9.049363e+04
45	presto/tpcds:q46	6.332098e+06	6.568274e+05	6.766485e+06	6.714938e+05	6.009135e+06	2.725026e+05
46	presto/tpcds:q47	1.513739e+07	1.645141e+05	1.511421e+07	6.920072e+04	1.524007e+07	1.587634e+05
47	presto/tpcds:q48	9.876659e+06	3.491757e+05	1.025066e+07	4.744542e+05	9.850733e+06	1.090016e+05
48	presto/tpcds:q49	6.577885e+06	5.902027e+05	6.534071e+06	5.465553e+05	6.201643e+06	5.862827e+05
49	presto/tpcds:q50	5.541665e+06	1.817098e+05	5.227328e+06	4.829059e+05	5.235770e+06	3.516294e+05
50	presto/tpcds:q51	1.353814e+07	5.271058e+05	1.369473e+07	5.202205e+05	1.314034e+07	2.636794e+05
51	presto/tpcds:q52	3.368991e+06	1.171872e+05	3.344131e+06	2.109733e+05	3.381776e+06	1.372312e+05
52	presto/tpcds:q53	3.441160e+06	1.507902e+05	3.277234e+06	1.856972e+05	3.551136e+06	2.753510e+05
53	presto/tpcds:q54	2.912094e+06	1.949861e+05	2.729480e+06	1.035822e+05	2.805755e+06	4.445161e+04
54	presto/tpcds:q55	3.419293e+06	1.435320e+05	3.271311e+06	2.282289e+05	3.320312e+06	1.508766e+05
55	presto/tpcds:q56	5.676003e+06	3.429283e+05	5.755327e+06	6.597847e+05	5.465430e+06	2.960045e+05

	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	8.737608e+06	2.674247e+05	8.811842e+06	2.306266e+05	8.853357e+06	1.979865e+05
57	presto/tpcds:q58	3.011375e+06	2.969488e+05	2.985554e+06	2.470745e+05	3.040286e+06	3.081141e+05
58	presto/tpcds:q59	1.259132e+07	3.488186e+05	1.253188e+07	3.836434e+05	1.254594e+07	1.821274e+05
59	presto/tpcds:q60	6.714538e+06	3.318469e+05	6.595095e+06	3.414030e+05	7.068063e+06	2.195700e+05
60	presto/tpcds:q61	1.039045e+07	2.815617e+05	9.866458e+06	5.302008e+05	1.024871e+07	3.617303e+05
61	presto/tpcds:q62	2.401476e+06	1.662133e+05	2.630185e+06	3.787506e+05	2.426199e+06	1.743492e+05
62	presto/tpcds:q63	3.350227e+06	1.882915e+05	3.452914e+06	1.545142e+05	3.461342e+06	8.562844e+04
63	presto/tpcds:q64	7.613538e+07	2.143719e+06	7.209957e+07	1.559321e+06	7.248620e+07	1.048714e+06
64	presto/tpcds:q65	1.809048e+07	5.203710e+05	1.845934e+07	5.215967e+05	1.848060e+07	8.373239e+05
65	presto/tpcds:q66	3.872925e+06	3.245993e+05	3.952393e+06	3.934941e+05	3.819381e+06	1.725861e+05
66	presto/tpcds:q67	8.526578e+07	1.244213e+05	8.529892e+07	1.288712e+05	8.521504e+07	1.272912e+05
67	presto/tpcds:q68	8.480667e+06	6.742705e+05	7.964907e+06	1.315250e+05	8.314193e+06	3.851254e+05
68	presto/tpcds:q69	1.258642e+06	1.682298e+05	1.085028e+06	7.228109e+04	1.400364e+06	2.104535e+05
69	presto/tpcds:q70	4.157358e+06	2.903179e+05	4.282060e+06	3.437127e+05	4.211272e+06	2.526681e+05
70	presto/tpcds:q71	3.639373e+06	3.383554e+05	3.505683e+06	2.862250e+05	3.290259e+06	1.754354e+05
71	presto/tpcds:q72	1.310083e+07	1.144151e+05	1.312579e+07	6.963693e+04	1.311210e+07	5.742149e+04
72	presto/tpcds:q73	2.583227e+06	1.060496e+05	1.724612e+06	1.528970e+05	1.666409e+06	5.877541e+04

	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	1.501972e+07	4.993631e+05	1.516472e+07	4.042669e+05	1.528914e+07	5.953173e+05
74	presto/tpcds: q75	2.686809e+07	1.157533e+06	2.768575e+07	8.132730e+05	2.708882e+07	7.389296e+05
75	presto/tpcds: q76	2.878891e+06	3.879625e+05	2.556686e+06	2.448419e+05	2.603884e+06	3.655226e+05
76	presto/tpcds: q77	3.591743e+06	2.406059e+05	3.776703e+06	5.457589e+05	3.641533e+06	3.934809e+05
77	presto/tpcds: q78	1.059114e+08	5.708996e+04	1.058387e+08	1.103988e+05	1.059185e+08	4.313655e+04
78	presto/tpcds: q79	6.759789e+06	1.760956e+05	6.819119e+06	3.900235e+05	6.691096e+06	2.239439e+05
79	presto/tpcds: q80	4.445514e+07	2.497719e+05	4.475021e+07	2.150808e+05	4.451850e+07	9.000697e+04
80	presto/tpcds: q81	6.143068e+06	3.866129e+05	6.165104e+06	3.842117e+05	6.230212e+06	2.609604e+05
81	presto/tpcds: q82	1.110636e+06	7.006109e+04	1.063026e+06	1.193160e+05	1.120479e+06	1.121175e+05
82	presto/tpcds: q83	1.260550e+06	6.284008e+05	1.412771e+06	7.253108e+05	1.515833e+06	6.548056e+05
83	presto/tpcds: q84	2.089622e+05	7.182414e+04	2.186519e+05	9.857275e+04	1.375443e+05	2.761570e+04
84	presto/tpcds: q85	1.376046e+07	2.167513e+05	1.371205e+07	1.872533e+05	1.381721e+07	2.502905e+05
85	presto/tpcds: q86	2.725880e+06	3.737542e+04	2.802935e+06	4.639575e+04	2.756060e+06	4.674034e+04
86	presto/tpcds: q87	1.008664e+07	1.912337e+05	1.012424e+07	2.151686e+05	1.015985e+07	1.706606e+05
87	presto/tpcds: q88	1.499106e+06	4.586545e+04	1.490596e+06	3.556080e+04	1.529146e+06	3.785499e+04
88	presto/tpcds: q89	3.900712e+06	3.180935e+05	3.986171e+06	2.009684e+05	3.868981e+06	1.445033e+05
89	presto/tpcds: q90	8.649357e+05	1.935179e+05	8.524586e+05	1.146296e+05	8.630770e+05	1.202233e+05

	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	1.401403e+05	1.364487e+04	1.630184e+05	4.370686e+04	1.671761e+05	1.862603e+04
91	presto/tpcds:q92	1.800935e+06	2.455662e+05	1.913445e+06	1.082143e+05	1.765563e+06	1.910431e+05
92	presto/tpcds:q93	2.188607e+07	1.392153e+05	2.175894e+07	2.154050e+05	2.183810e+07	1.353539e+05
93	presto/tpcds:q94	1.078382e+07	2.541446e+05	4.728596e+06	1.984417e+05	4.863945e+06	1.188231e+05
94	presto/tpcds:q95	7.716025e+07	2.048599e+05	7.706631e+07	1.757891e+05	7.705153e+07	2.579030e+05
95	presto/tpcds:q96	9.596503e+05	1.163170e+05	9.037348e+05	8.406104e+04	8.875699e+05	2.304623e+04
96	presto/tpcds:q97	4.827110e+07	9.166351e+05	4.966049e+07	1.652179e+06	4.810891e+07	6.667893e+05
97	presto/tpcds:q98	3.919879e+06	1.050377e+05	3.874908e+06	1.749881e+05	3.921715e+06	4.577937e+04
98	presto/tpcds:q99	2.394384e+06	1.751000e+05	2.400613e+06	2.102764e+05	2.295131e+06	8.878164e+04