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PostgreSQL 13.0

2 x Intel Xeon Gold 5220R testing with a TYAN S7106 (V2.01.B40 BIOS) and llvmpipe on Ubuntu 20.04 via the Phoronix Test Suite.

Test Systems:

pgbench 13

Processor: 2 x Intel Xeon Gold 5220R @ 3.90GHz (36 Cores / 72 Threads), Motherboard: TYAN S7106 (V2.01.B40 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 94GB, Disk: 500GB Samsung SSD 860, Graphics: llvmpipe, Monitor: VE228, Network: 2 x Intel I210 + 2 x QLogic cLOM8214 1/10GbE

OS: Ubuntu 20.04, Kernel: 5.9.0-050900rc6-generic (x86_64) 20200920, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 3.3 Mesa 20.0.4 (LLVM 9.0.1 256 bits), Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none,hsa --enable-plugin --enable-shared --enable-threads=posix

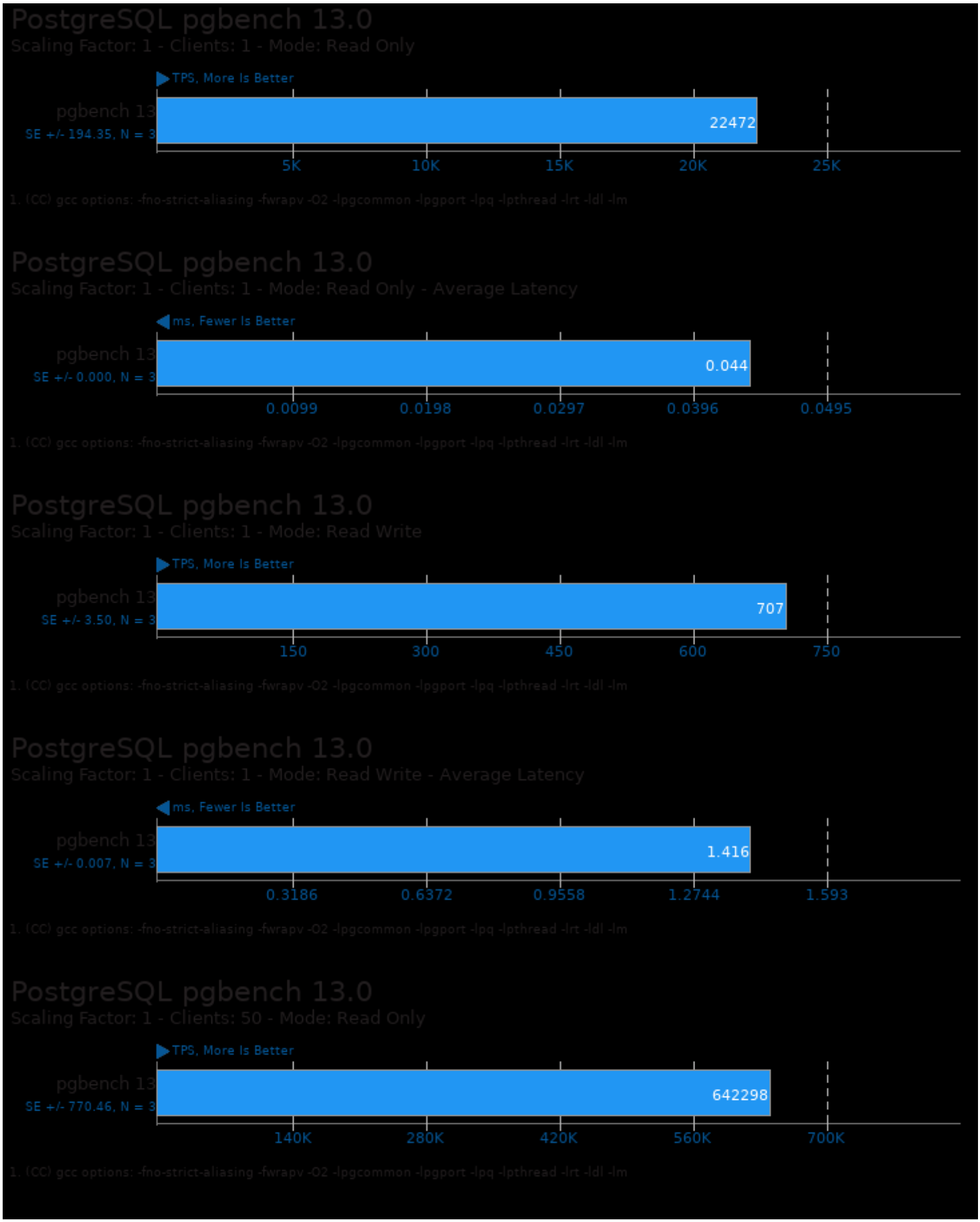
PostgreSQL 13.0

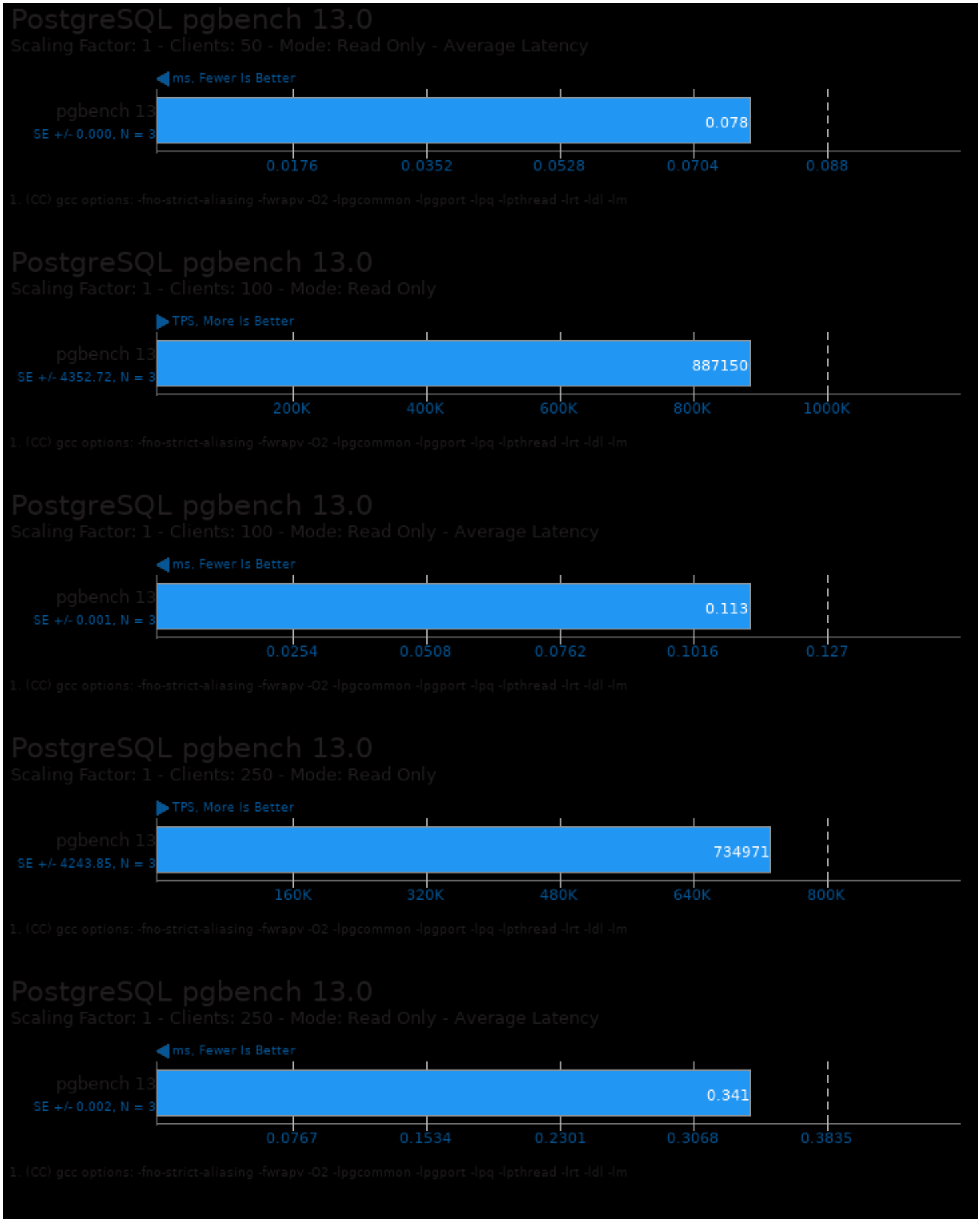
--host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0x5002f01
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Mitigation of TSX disabled

	pgbench 13
PostgreSQL pgbench - 1 - 1 - Read Only (TPS)	22472
Standard Deviation	1.5%
PostgreSQL pgbench - 1 - 1 - Read Only - Average Latency (ms)	0.044
Standard Deviation	1.3%
PostgreSQL pgbench - 1 - 1 - Read Write (TPS)	707
Standard Deviation	0.9%
PostgreSQL pgbench - 1 - 1 - Read Write - Average Latency (ms)	1.416
Standard Deviation	0.9%
PostgreSQL pgbench - 1 - 50 - Read Only (TPS)	642298
Standard Deviation	0.2%
PostgreSQL pgbench - 1 - 50 - Read Only - Average Latency (ms)	0.078
Standard Deviation	0%
PostgreSQL pgbench - 1 - 100 - Read Only (TPS)	887150
Standard Deviation	0.8%
PostgreSQL pgbench - 1 - 100 - Read Only - Average Latency (ms)	0.113
Standard Deviation	0.9%
PostgreSQL pgbench - 1 - 250 - Read Only (TPS)	734971
Standard Deviation	1%
PostgreSQL pgbench - 1 - 250 - Read Only - Average Latency (ms)	0.341
Standard Deviation	1.1%
PostgreSQL pgbench - 1 - 50 - Read Write (TPS)	782
Standard Deviation	0.6%
PostgreSQL pgbench - 1 - 50 - Read Write - Average Latency (ms)	63.995
Standard Deviation	0.6%
PostgreSQL pgbench - 100 - 1 - Read Only (TPS)	19223
Standard Deviation	0.4%
PostgreSQL pgbench - 100 - 1 - Read Only - Average Latency (ms)	0.052
Standard Deviation	0%
PostgreSQL pgbench - 1 - 100 - Read Write (TPS)	283
Standard Deviation	32.2%
PostgreSQL pgbench - 1 - 100 - Read Write - Average Latency (ms)	370.795
Standard Deviation	16%
PostgreSQL pgbench - 1 - 250 - Read Write (TPS)	249
Standard Deviation	0.8%
PostgreSQL pgbench - 1 - 250 - Read Write - Average Latency (ms)	1004
Standard Deviation	0.8%
PostgreSQL pgbench - 100 - 1 - Read Write (TPS)	232
Standard Deviation	2.1%
PostgreSQL pgbench - 100 - 1 - Read Write - Average Latency (ms)	4.306
Standard Deviation	2%
PostgreSQL pgbench - 100 - 50 - Read Only (TPS)	534980
Standard Deviation	0.3%
PostgreSQL pgbench - 100 - 50 - Read Only - Average Latency (ms)	0.093

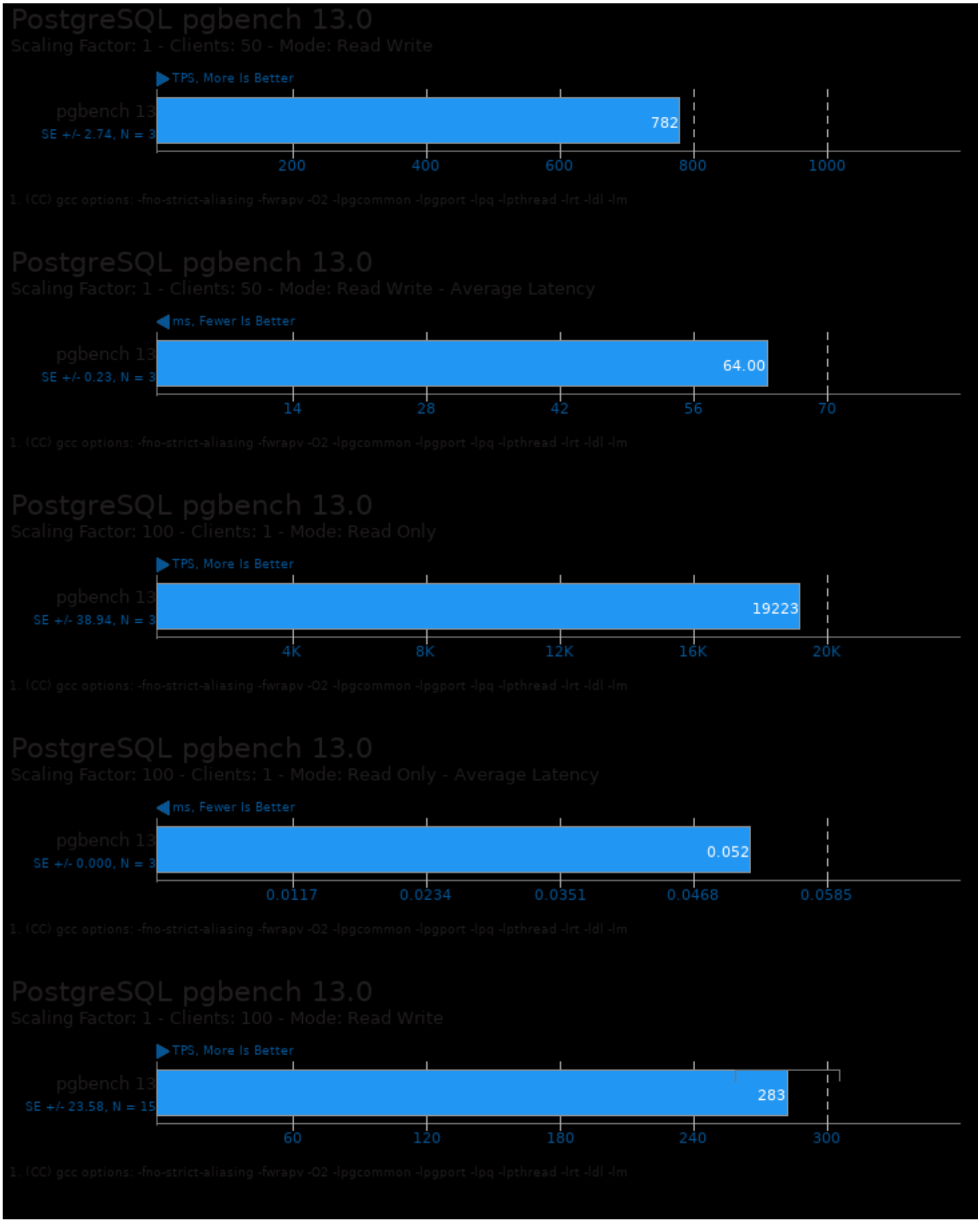
Standard Deviation	0.6%
PostgreSQL pgbench - 1000 - 1 - Read Only (TPS)	18117
Standard Deviation	0.6%
PostgreSQL pgbench - 1000 - 1 - Read Only - Average Latency (ms)	0.055
Standard Deviation	1%
PostgreSQL pgbench - 100 - 100 - Read Only (TPS)	630798
Standard Deviation	1.2%
PostgreSQL pgbench - 100 - 100 - Read Only - Average Latency	0.159
Standard Deviation	1%
PostgreSQL pgbench - 100 - 250 - Read Only (TPS)	624223
Standard Deviation	0.3%
PostgreSQL pgbench - 100 - 250 - Read Only - Average Latency	0.401
Standard Deviation	0.2%
PostgreSQL pgbench - 100 - 50 - Read Write (TPS)	3768
Standard Deviation	3.1%
PostgreSQL pgbench - 100 - 50 - Read Write - Average Latency	13.285
Standard Deviation	3.2%
PostgreSQL pgbench - 1000 - 1 - Read Write (TPS)	253
Standard Deviation	1%
PostgreSQL pgbench - 1000 - 1 - Read Write - Average Latency	3.953
Standard Deviation	1%
PostgreSQL pgbench - 1000 - 50 - Read Only (TPS)	511047
Standard Deviation	0.3%
PostgreSQL pgbench - 1000 - 50 - Read Only - Average Latency	0.098
Standard Deviation	0%

PostgreSQL 13.0

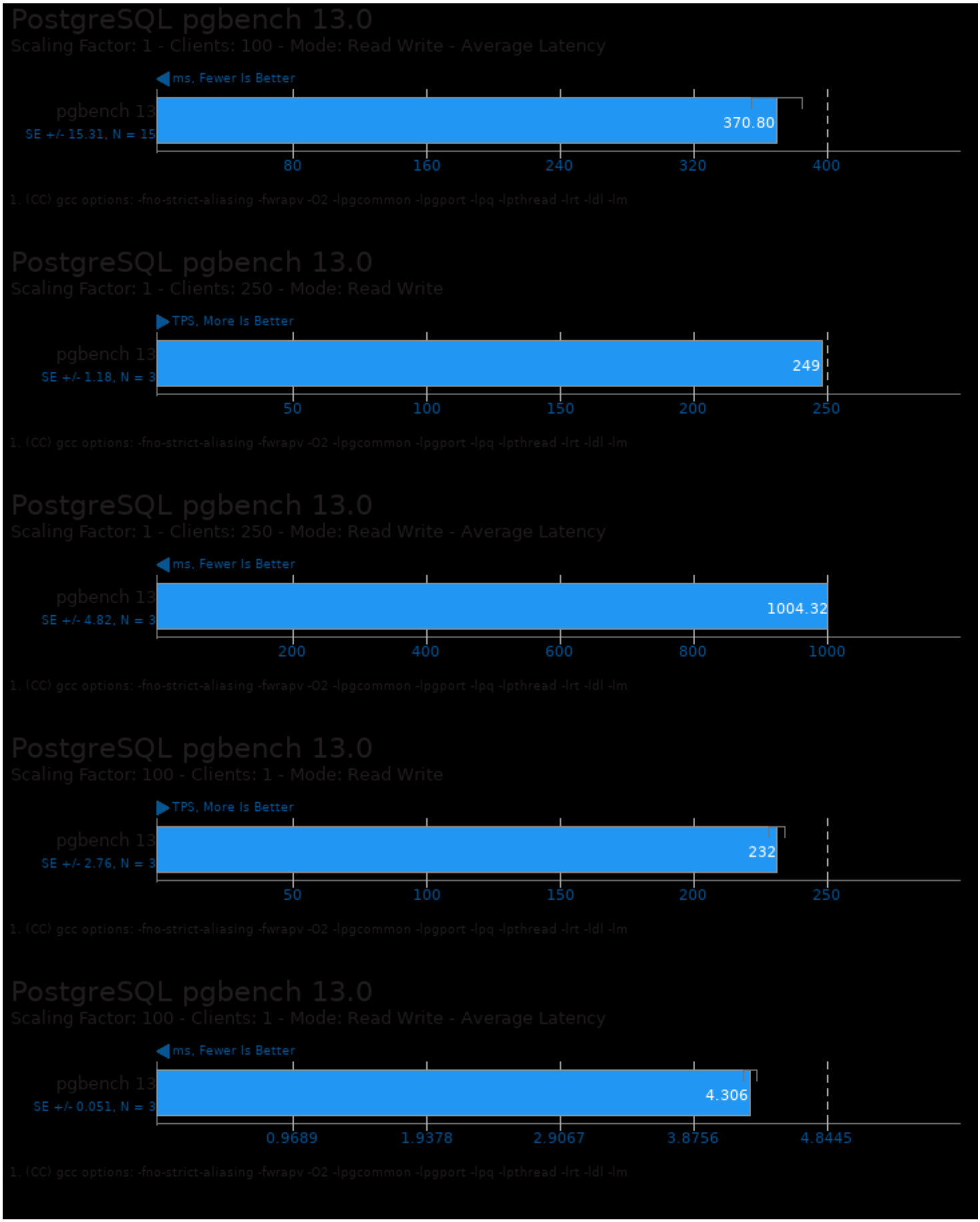


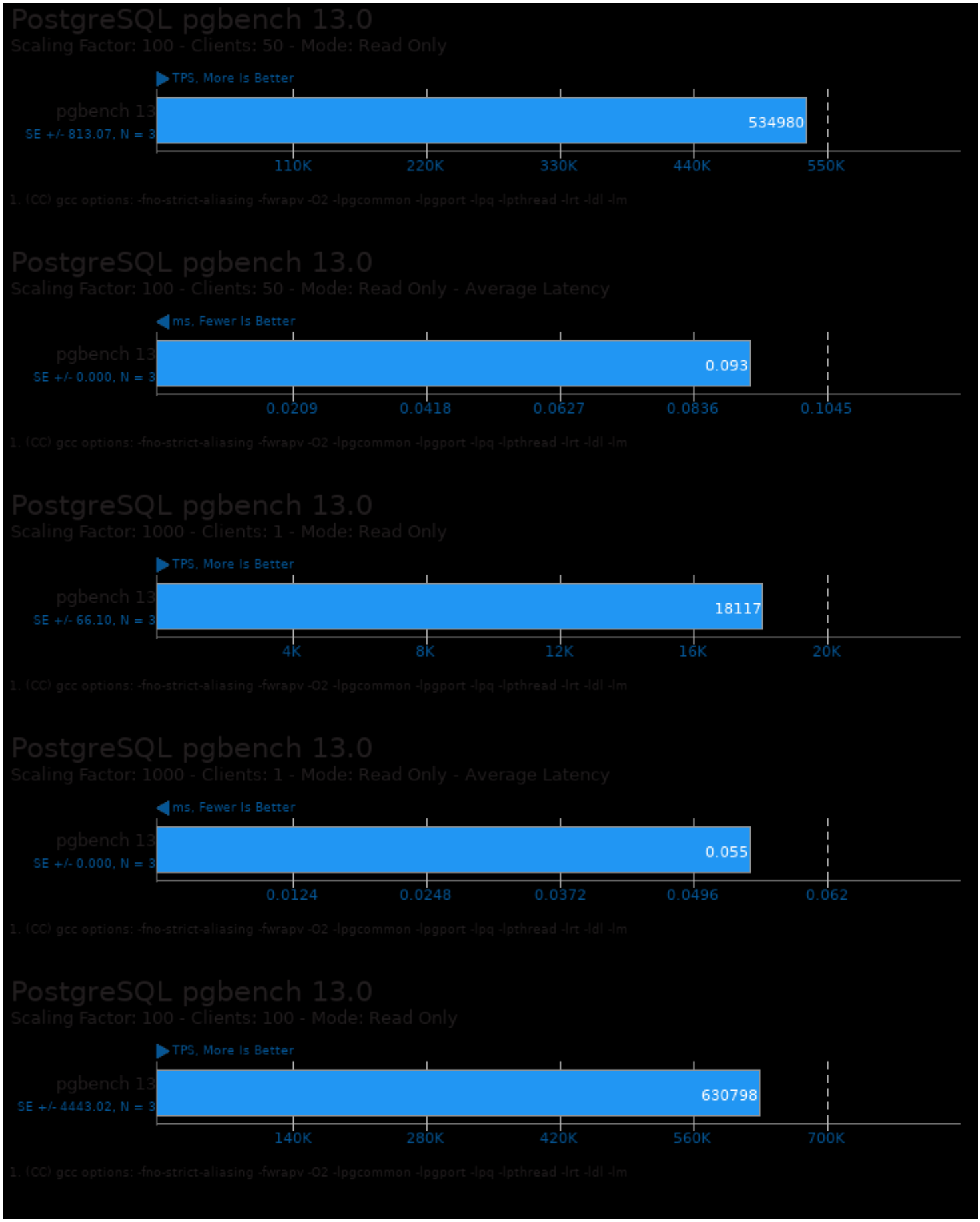

PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 50 - Mode: Read Only - Average Latency
ms, Fewer Is Better
pgbench 13
SE +/- 0.000, N = 3
0.078
0.0176
0.0352
0.0528
0.0704
0.088
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 100 - Mode: Read Only
TPS, More Is Better
pgbench 13
SE +/- 4352.72, N = 3
887150
200K
400K
600K
800K
1000K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 100 - Mode: Read Only - Average Latency
ms, Fewer Is Better
pgbench 13
SE +/- 0.001, N = 3
0.113
0.0254
0.0508
0.0762
0.1016
0.127
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 250 - Mode: Read Only
TPS, More Is Better
pgbench 13
SE +/- 4243.85, N = 3
734971
160K
320K
480K
640K
800K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 250 - Mode: Read Only - Average Latency
ms, Fewer Is Better
pgbench 13
SE +/- 0.002, N = 3
0.341
0.0767
0.1534
0.2301
0.3068
0.3835
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

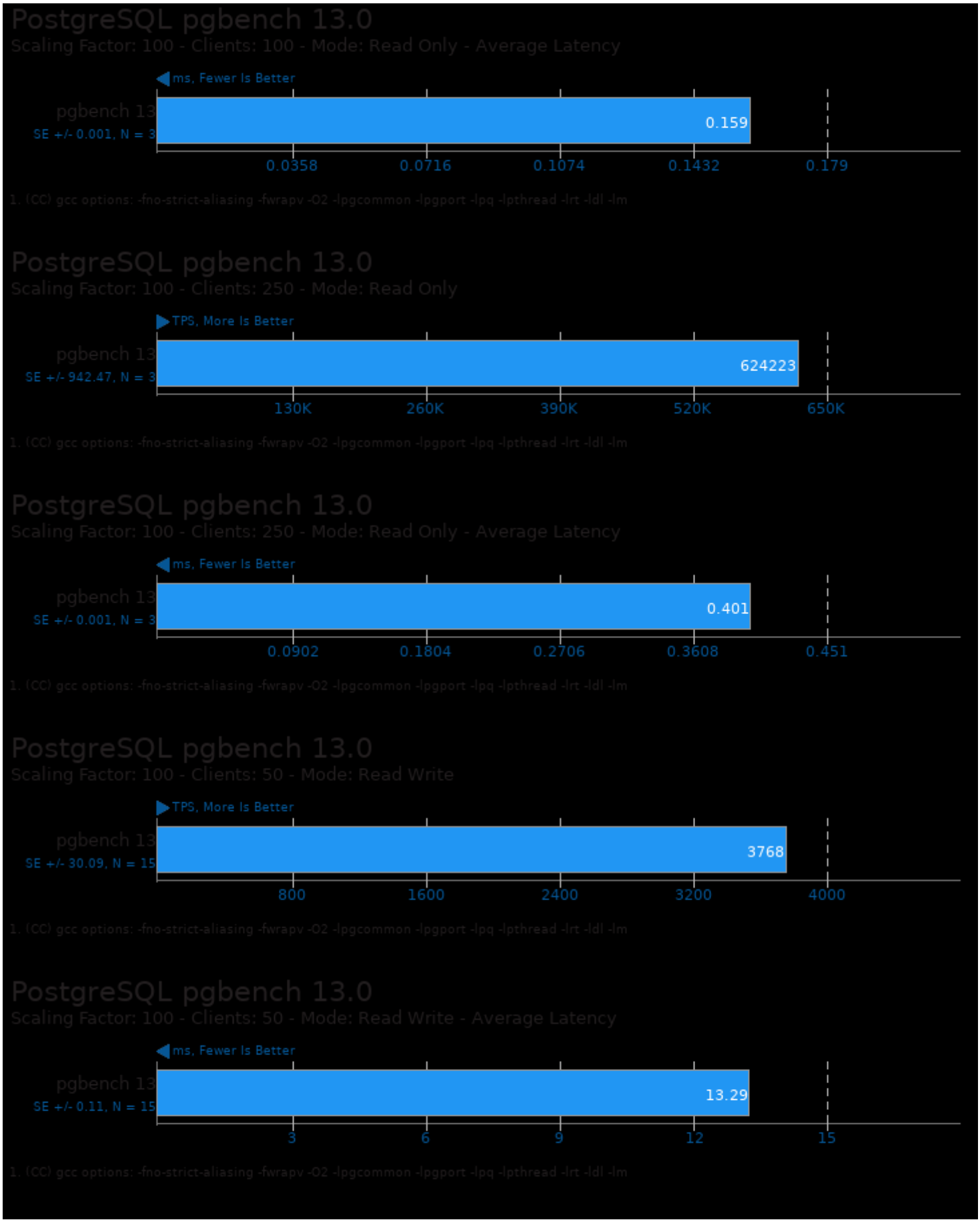
PostgreSQL 13.0

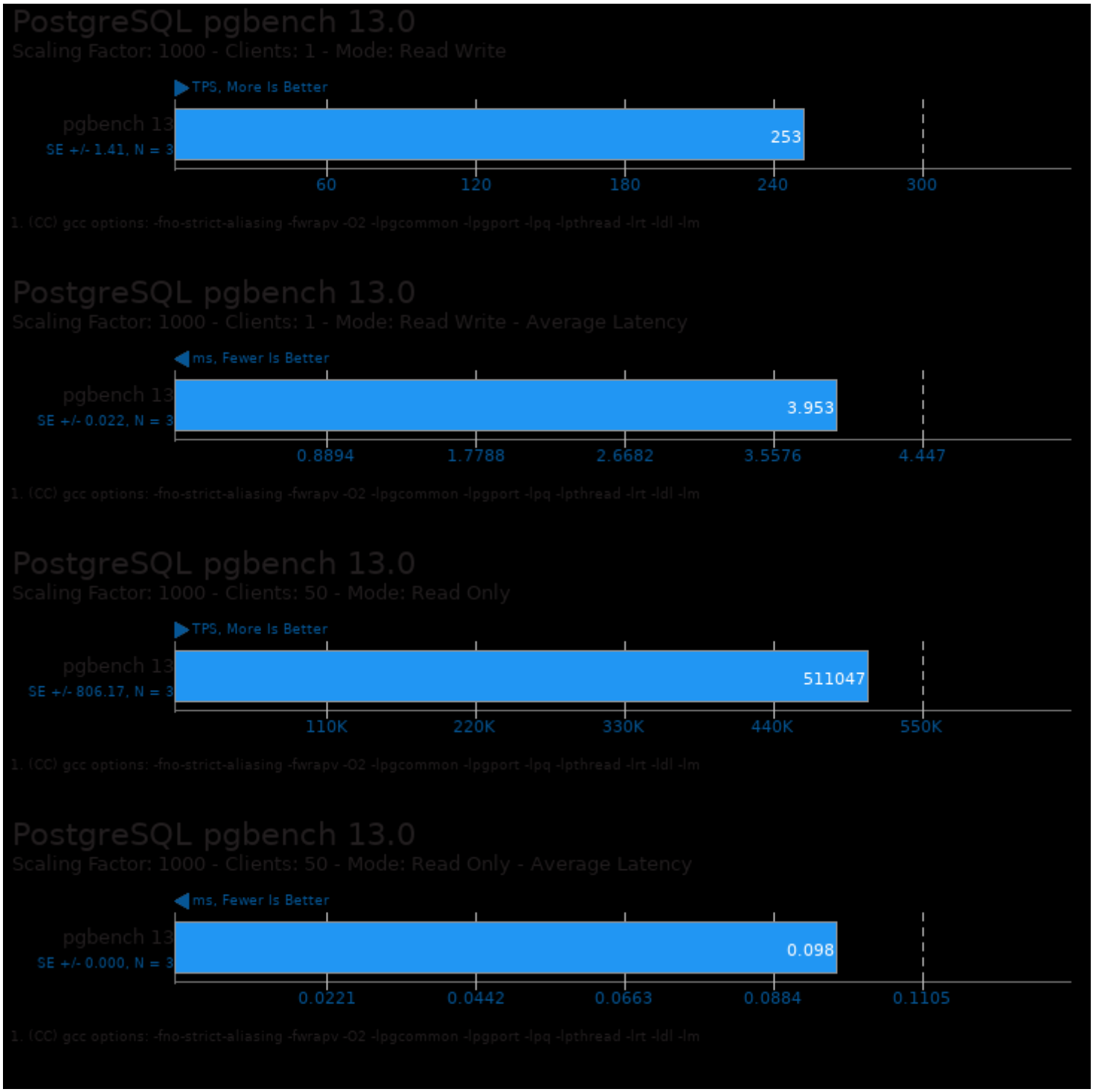


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PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Only
TPS, More Is Better
pgbench 13
SE +/- 813.07, N = 3
534980
110K
220K
330K
440K
550K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Only - Average Latency
ms, Fewer Is Better
pgbench 13
SE +/- 0.000, N = 3
0.093
0.0209
0.0418
0.0627
0.0836
0.1045
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Only
TPS, More Is Better
pgbench 13
SE +/- 66.10, N = 3
18117
4K
8K
12K
16K
20K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Only - Average Latency
ms, Fewer Is Better
pgbench 13
SE +/- 0.000, N = 3
0.055
0.0124
0.0248
0.0372
0.0496
0.062
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Only
TPS, More Is Better
pgbench 13
SE +/- 4443.02, N = 3
630798
140K
280K
420K
560K
700K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Only - Average Latency
ms, Fewer Is Better
pgbench 13
SE +/- 0.001, N = 3
0.159
0.0358
0.0716
0.1074
0.1432
0.179
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 250 - Mode: Read Only
TPS, More Is Better
pgbench 13
SE +/- 942.47, N = 3
624223
130K
260K
390K
520K
650K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 250 - Mode: Read Only - Average Latency
ms, Fewer Is Better
pgbench 13
SE +/- 0.001, N = 3
0.401
0.0902
0.1804
0.2706
0.3608
0.451
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Write
TPS, More Is Better
pgbench 13
SE +/- 30.09, N = 15
3768
800
1600
2400
3200
4000
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Write - Average Latency
ms, Fewer Is Better
pgbench 13
SE +/- 0.11, N = 15
13.29
3
6
9
12
15
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 18:12.