These are benchmarks collected from the community used to measure the effects of changes to the Go core (compiler, runtime, garbage collector, and libraries). They should have the following properties:

- they matter; someone cares, perhaps in a dollars-and-cents way, that they run well
- they are go-gettable and don't require customized steps for building the benchmark
- they run under `go test -bench ...`
- they run relatively quickly, ideally a single "run" takes less than a second (there should perhaps be a separate set of longer-running benchmarks)
- their timings are not gratuitously noisy
- they run cleanly in a restricted environment, such as a Docker or rkt container
- they're not gratuitously redundant with other benchmarks already in the list; we don't need ten microbenchmarks of Go transcendental functions

These benchmarks change over time, and that is okay. Their intended use is for performance testing of proposed changes; is the geometric mean better, were any benchmarks made substantially worse?

Information for each benchmark includes (or should include):

- a short name for the benchmark
- the path to `go get` the benchmark
- a regexp for the benchmark suite excluding individual benchmarks that might be noisy, long-running, or redundant
- (ideally) a contact person for questions about the benchmarks

short name	notes	go get path	benchmark regexp	contact
ajstarks_deck_generate		github.com/ajstarks/deck/generate	Benchmark(Polygon|Arc)	
benhoyt_goawk		github.com/benhoyt/goawk	Benchmark/interp	
bindata		github.com/kevinburke/go-bindata	Benchmark	
capnproto2		zombiezen.com/go/capnproto2	Benchmark(TextMovementBetweenSegments|Growth_MultiSegm...	
cespare_mph		github.com/cespare/mph	BenchmarkBuild	
cespare_xxhash		github.com/cespare/xxhash	BenchmarkHashes/xxhash-string,n=10_MB	
ericlagergren_decimal		github.com/ericlagergren/decimal	Benchmark/dec/demandbenchmarks	
ethereum_bitutil		github.com/ethereum/...	Benchmark(BaseTest2KB|FastTest2KB|Encoding4KBVerySpar...	
ethereum_core		github.com/ethereum/...	BenchmarkChainRead_full_10k	
ethereum_corevm		github.com/ethereum/...	BenchmarkOpDiv128 core/vm	
ethereum_ecies		github.com/ethereum/...	BenchmarkGenSharedKeyP256	
ethereum_ethash		github.com/ethereum/...	BenchmarkHashimotoLight consensus/ethash	
ethereum_sha3		github.com/ethereum/...	BenchmarkSha3_224_MTU crypto/sha3	
ethereum_storage		github.com/ethereum/...	BenchmarkJoin_8m swarm/storage	
ethereum_trie		github.com/ethereum/...	Benchmark ethereum/trie	
gonum_blas_native		gonum.org/v1/gonum/blas	Benchmark(Dnrm2MediumUnitaryInc|Dnrm2MediumPosInc)	
gonum_community		gonum.org/v1/gonum/graph	BenchmarkLouvainDirectedMultiplex	

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short name	notes	go get path	benchmark regexp	contact
gonum_lapack_native		gonum.org/v1/gonum/lapack/native	BenchmarkDgeev/Circulant10	
gonum_mat		gonum.org/v1/gonum/mat	Benchmark(MulWorkspaceDense1000Hundredth|ScaleVec10000...	
gonum_path		gonum.org/v1/gonum/graph/path	BenchmarkAStarUndirectedmallWorld_10_2_2_2_Heur|Domin...	
gonum_topo		gonum.org/v1/gonum/graph/topo	BenchmarkTarjanSCCGnp_1000_half|TarjanSCCGnp_10_tenth...	
gonum_traverse		gonum.org/v1/gonum/graph	BenchmarkWalkAllBreadthFirstGnp_(10|1000)_tenth	
gtank_blake2s		github.com/gtank/blake2s	BenchmarkHash8K	
gtank_ed25519		github.com/gtank/ed25519	Benchmark(IsOnCurve|ScalarMult)	
hugo_helpers		github.com/gohugo...	Benchmark(StripHTML|ReaderContains)	
hugo_hugolib		github.com/gohugo...	BenchmarkParsePage	
hugo_hugolib_sitebuilding		github.com/gohugo...	BenchmarkSiteBuilding/YAML,num_pages=10,num_tags=10,tag...	
k8s_api		k8s.io/kubernetes/pkg/api	BenchmarkEncodeCodecFromInternalProtobuf	
k8s_schedulercache		k8s.io/kubernetes/pkg/...	BenchmarkSchedulerNodes1kPods30kPods	
minio		github.com/minio/...	BenchmarkGetObject5MbFS	
nelsam_gxui_interval		github.com/nelsam/gxui/interval	BenchmarkInterval	
pilosa_bitmaps	benchmark in roaring/ subdirectory	github.com/pilosa/...	BenchmarkBitmap_IntersectionCount	jeff@pilosa.com
semver		github.com/Masterminds/semver	BenchmarkValidateVersionTildeFail	
spexs2		github.com/egonelbre/spexs2/.../benchmark/	BenchmarkRun2/10k/	
uber_zap		go.uber.org/zap	BenchmarkAddingFields/(Zap.Sugar|^[ais])	
uuid		github.com/satori/...	Benchmark(NewV5|MarshalToString)	

There is a benchmark runner that automates downloading, building, and running these benchmarks under various (user-defined) configurations. Benchmarking noise on Linux can be somewhat reduced with perflock.

A few have been proposed but have so far failed to make the cut (for fetch, build, or noise problems):

short name	notes	go get path	benchmark regexp	contact
eolian_dsp		buddin.us/eolian/dsp	Benchmark	
ethereum_whisperv5		github.com/ethereum/go-ethereum/whisper/whisperv5	Benchmark	
kanzi		github.com/flanglet/kanzi/go/src/kanzi/benchmark	Benchmark	