1) Data structure L1: a struct containing three elements: a int tag, a bool dirty, a bool valid. Instantiated 256 of them according to the formula to calculate num of sets.

2) Associativity of 64 (or higher if applicable) minimizes global miss rate.
3) Total Volume of traffic between L1 D-cache and L2 cache:
(blocksize * (l2_accesses - d_misses))

bubble 256 65536 8
D miss rate = 0.008001
I miss rate = 0.002478
L2 miss rate = 0.251099
Global miss rate = 0.001017
Volume of traffic = 256 * (25715 – 14554) = 2857216

Merge
D miss rate = 0.015941
I miss rate = 0.002634
L2 miss rate= 0.161701
Glob m rate = 0.001152
Volume of traffic = 256 * (55803 – 41760) = 3595008

Random4k
D miss rate = 0.750877
I miss rate = nan
L2 miss rate= 0.001301
Glob m rate = 0.000558
Volume of traffic = 256 * (196838 – 196838) = 0

Stream1M
D miss rate = 0.062500
I miss rate = nan
L2 miss rate= 0.250000
Glob m rate = 0.014706
Volume of traffic = 256 * (16384 – 16384) = 0

Bubble 64
Glob m rate = 0.000929
Bubble 32
Glob m rate = 0.000951
Bubble 16
Glob m rate = 0.000965
Bubble 8
Glob m rate = 0.001017
Bubble 4
Glob m rate = 0.001145
Bubble 2
Glob m rate = 0.001190
Bubble 1
Glob m rate = 0.001670