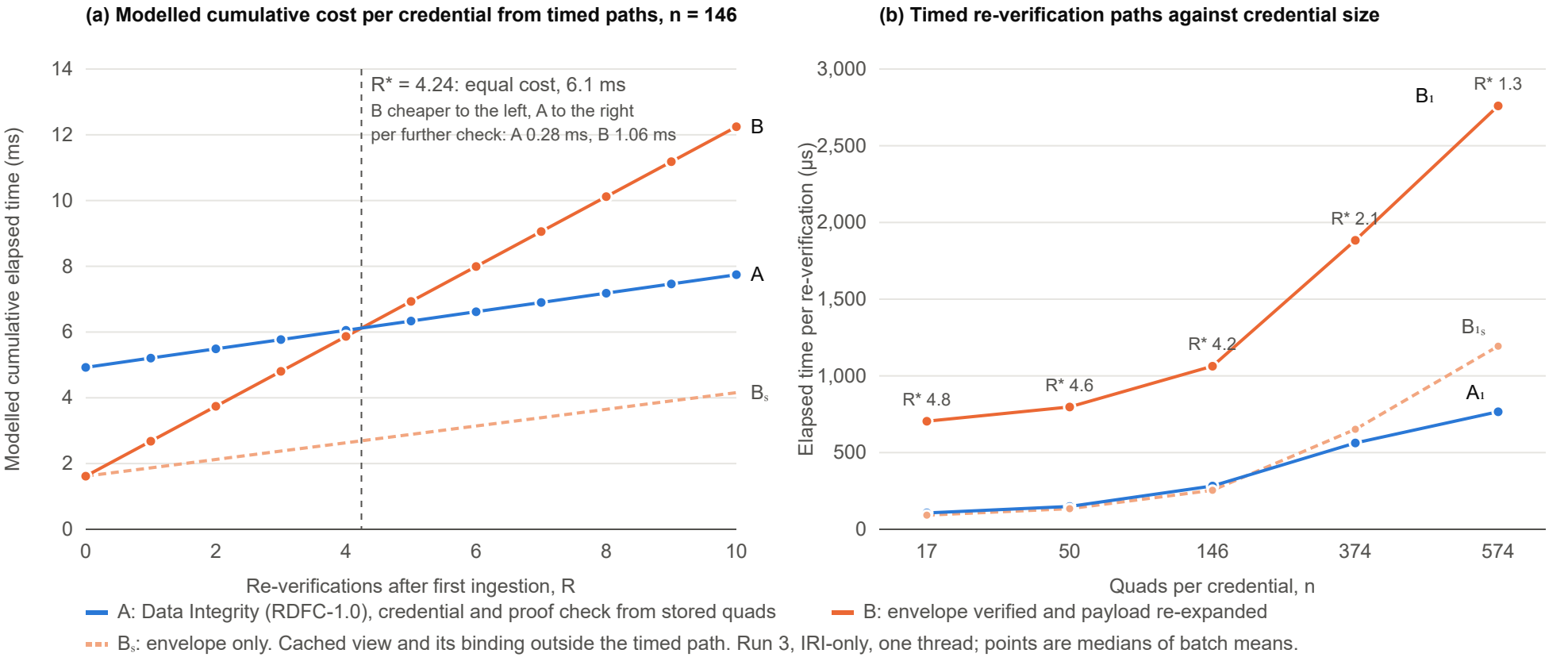

(a) Modelled cumulative cost per credential from timed paths, n = 146
Modelled cumulative elapsed time (ms)
R* = 4.24: equal cost, 6.1 ms
B cheaper to the left, A to the right
per further check: A 0.28 ms, B 1.06 ms
B
A
Bs
0
2
4
6
8
10
12
14
Re-verifications after first ingestion, R
(b) Timed re-verification paths against credential size
Elapsed time per re-verification (µs)
B1
R* 1.3
R* 2.1
R* 4.2
R* 4.6
R* 4.8
B1s
A1
0
500
1,000
1,500
2,000
2,500
3,000
17
50
146
374
574
Quads per credential, n
A: Data Integrity (RDFC-1.0), credential and proof check from stored quads
B: envelope verified and payload re-expanded
Bs: envelope only. Cached view and its binding outside the timed path. Run 3, IRI-only, one thread; points are medians of batch means.