Reference File		tr-simpleloop.ref					tr-matmul.ref					tr-blocked.ref					tr-simpleloop2.ref				
M = 50		FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND
	Hit Rate	70.9348	53.0636	72.7219	73.8119	70.5322	60.9651	25.1072	63.9445	79.6543	65.5358	99.7315	25.1266	99.7619	99.8467	99.6571	95.4347	66.8757	96.689	97.7246	94.9096
	Hit Count	7224	5404	7406	7517	7183	1760570	725055	1846610	230028	1892564	2411620	607590	2412355	2414406	2409821	6543	4585	6629	6700	6507
	Miss Count	2960	4780	2778	2667	3001	1127262	2162777	1041222	587549	995268	6492	1810522	5757	3706	8291	313	2271	227	156	349
	Overall Eviction Count	2910	4730	2728	2617	2951	1127212	2162727	1041172	587499	995218	6442	1810472	5707	3656	8241	263	2221	177	106	299
	Clean Eviction Count	317	2113	200	110	354	1083354	1782314	1040195	586538	955815	4303	1489240	3407	2697	5857	218	2096	158	97	246
	Dirty Eviction Count	2593	2617	2528	2507	2597	43858	380413	977	961	39403	2139	321232	2300	959	2384	45	125	19	9	53
M = 100		FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND
	Hit Rate	72.9478	72.4077	73.6155	74.077	72.7121	62.479	38.34	65.3098	96.7867	88.7743	99.8208	38.2278	99.8218	99.8757	99.7838	97.6517	95.6389	97.8559	97.9872	97.6371
	Hit Count	7429	7374	7497	7544	7405	1804288	1107196	1886038	279503	2563654	2413778	924392	2413803	2415106	2412883	6695	6557	6709	6718	6694
	Miss Count	2755	2810	2687	2640	2779	1083544	1780636	1001794	92794	324178	4334	1493720	4309	3006	5229	161	299	147	138	162
	Overall Eviction Count	2655	2710	2587	2540	2679	1083444	1780536	1001694	92712	324078	4234	1493620	4209	2906	5129	61	199	47	38	62
	Clean Eviction Count	161	196	119	39	176	1061341	1400237	1000732	91735	316661	2878	1172504	2732	1959	3524	45	179	39	36	52
	Dirty Eviction Count	2494	2514	2468	2501	2503	22103	380299	962	959	7417	1356	321116	1477	947	1605	16	20	8	2	10
M = 150		FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND
	Hit Rate	73.3504	74.0573	73.6744	74.077	73.3504	98.8086	41.2272	98.798	99.0785	96.6556	99.8254	43.0663	99.8438	99.8957	99.819	97.9872	97.9872	97.9872	97.9872	97.9872
	Hit Count	7470	7542	7503	7544	7470	2853426	1190571	2853119	286122	2791251	2413890	1041392	2414335	2415589	2413735	6718	6718	6718	6718	6718
	Miss Count	2714	2642	2681	2640	2714	34406	1697261	34713	26611	96581	4222	1376720	3777	2523	4377	138	138	138	138	138
	Overall Eviction Count	2564	2492	2531	2490	2564	34256	1697111	34563	26461	96431	4072	1376570	3627	2373	4227	0	0	0	0	0
	Clean Eviction Count	132	4	115	2	133	33062	1338248	33603	25502	94193	2772	1083847	2688	1424	2879	0	0	0	0	0
	Dirty Eviction Count	2432	2488	2416	2488	2431	1194	358863	960	959	2238	1300	292723	939	949	1348	0	0	0	0	0
M = 200		FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND	FIFO	LRU	CLOCK	OPT	RAND
	Hit Rate	73.4289	74.0573	73.6744	74.077	73.3995	98.8266	45.2209	98.8613	99.333	98.0366	99.8689	47.0288	99.8673	99.906	99.8404	97.9872	97.9872	97.9872	97.9872	97.9872
	Hit Count	7478	7542	7503	7544	7475	2853947	1305903	2854947	286857	2831131	2414942	1137208	2414903	2415839	2414252	6718	6718	6718	6718	6718
	Miss Count	2706	2642	2681	2640	2709	33885	1581929	32885	19261	56701	3170	1280904	3209	2273	3860	138	138	138	138	138
	Overall Eviction Count	2506	2442	2481	2440	2509	33685	1581729	32685	19061	56501	2970	1280704	3009	2073	3660	0	0	0	0	0
	Clean Eviction Count	128	4	115	2	132	32552	1229455	31726	18102	54946	1995	995888	2058	1132	2433	0	0	0	0	0
	Dirty Eviction Count	2378	2438	2366	2438	2377	1133	352274	959	959	1555	975	284816	951	941	1227	0	0	0	0	0

Different algorithms provide the best result (i.e. highest hit rate) when going through the various trace files. For *tr-simpleloop.ref*, clock starts off as the most optimal algorithm (excluding opt) and as the memory size increases, other algorithms catch up and LRU becomes the most optimal (at m=200). For *matmul*, rand starts off as the most optimal algorithm and then other algorithms catch up and clock becomes the most optimal (at m=200). The general behaviour for all the algorithms is that the hit rate gets significantly higher when a bigger memory size is used, and gets significantly lower as a larger trace file is used (expected behaviour).

LRU performs very poorly with small memory sizes; as the data shows, LRU has the worst hit rate of all the algorithms at the lowest memory size (regardless of which trace file is used). LRU also has a declining hit rate as the trace files become larger (this is common behaviour for all the algorithms). As more memory is added, the hit rate starts to catch up to the other algorithms. This was strange as we were expecting lru to generate a higher hit rate than fifo and rand (due to belady's anomaly impacting fifo and rand). However, we suspect that this behaviour may not be observed in our case due to the trace file being too small to observe belady's anomaly in action.