TABLE V: Extended fairness verification results (supplementary to Table 2 in the paper). Experiment setup: soft-timeout 100s, hard-timeout 30m, max-partition size: 100 (BM, GC), 10 (AC). BL: Baseline (w/ P - with Partitioning), Ver: Verification, #P: number of partitions, Cov: Coverage, US: UNSAT, UNK: UNKNOWN #H-At: number of times heuristic pruning attempted, C: average compression ratio – (S): sound pruning, (H): heuristic pruning, Average time (second) ⊙ – SV: sound verification, HV: heuristic verification.

PA	Model	BL	B w/ P	Ver	#P	Cov %	SAT	US	UNK	#H	#HS	C(S)	C(H)	SV ⊙	HV ⊙	Total ⊙
Age	BM1	UNK	UNK	SAT	75	13.14	9	58	8	9	1	0.90	0.01	14.04	11.00	25.40
	BM2	UNK	UNK	SAT	141	26.08	30	103	8	9	1	0.85	0.01	7.76	5.83	13.84
	BM3	UNK	UNK	SAT	139	26.47	27	108	4	6	2	0.96	0.00	9.78	3.42	13.49
	BM4	UNK	UNK	SAT	37	6.08	1	30	6	6	0	0.91	0.03	17.10	16.29	49.98
	BM5	UNK	UNK	SAT	510	99.61	114	394	2	7	5	0.83	0.00	2.29	0.54	2.96
	BM6	UNK	UNK	SAT	510	100.00	156	354	0	3	3	0.76	0.00	1.17	0.08	1.36
	BM7	UNK	UNK	SAT	124	23.33	62	57	5	9	4	0.92	0.01	8.31	5.10	14.89
	BM8	UNK	UNK	SAT	23	3.14	1	15	7	10	3	0.79	0.04	46.23	31.64	79.08
Sex	GC1	UNK	UNK	SAT	31	13.43	27	0	4	6	2	0.76	0.01	41.78	15.98	58.18
	GC2	UNK	UNK	SAT	11	1.99	4	0	7	9	2	0.78	0.04	97.18	75.67	174.18
	GC3	UNK	UNK	SAT	201	100.00	195	6	0	1	1	0.69	0.00	1.29	0.24	1.63
	GC4	UNK	UNK	SAT	201	100.00	2	199	0	1	1	0.63	0.00	0.73	0.14	0.97
	GC5	UNK	UNK	UNK	12	1.49	0	3	9	9	0	0.59	0.03	75.27	75.43	151.53
Age	GC1	UNK	UNK	SAT	46	20.40	41	0	5	8	3	0.75	0.01	29.72	12.96	43.19
	GC2	UNK	UNK	SAT	13	3.98	8	0	5	10	5	0.82	0.04	88.11	52.42	141.86
	GC3	UNK	UNK	SAT	201	100.00	195	6	0	1	1	0.69	0.00	1.41	0.22	1.74
	GC4	UNK	UNK	SAT	201	100.00	2	199	0	1	1	0.63	0.00	0.73	0.16	1.00
	GC5	UNK	UNK	UNK	13	1.99	0	4	9	9	0	0.62	0.03	69.49	69.73	139.73
Race	AC1	UNK	UNK	SAT	29	0.14	8	15	6	8	2	0.64	0.04	40.73	23.50	64.43
	AC2	UNK	UNK	SAT	15	0.04	4	3	8	10	2	0.82	0.04	72.62	54.86	128.45
	AC3	UNK	UNK	SAT	23	0.11	16	1	6	10	4	0.75	0.02	52.75	32.33	85.40
	AC4	UNK	UNK	UNK	8	0.00	0	0	8	8	0	0.67	0.20	100.57	100.08	241.70
	AC5	UNK	UNK	SAT	10	0.02	3	0	7	9	2	0.71	0.13	98.14	74.06	180.41
	AC6	SAT	SAT	SAT	19	0.07	6	5	8	9	1	0.49	0.05	55.70	44.43	100.37
	AC7	UNK	UNK	UNK	14	0.04	0	7	7	10	3	0.59	0.11	78.22	51.09	132.28
	AC8	UNK	UNK	SAT	101	0.63	82	19	0	1	1	0.22	0.00	17.59	0.13	17.84
	AC9	UNK	UNK	SAT	741	4.63	399	342	0	4	4	0.19	0.00	2.29	0.02	2.44
	AC10	UNK	UNK	SAT	20	0.09	6	8	6	10	4	0.27	0.05	62.07	32.82	95.07
	AC11	UNK	UNK	UNK	9	0.00	0	0	9	9	0	0.11	0.02	100.13	100.12	200.66
	AC12	UNK	UNK	UNK	16	0.04	0	7	9	9	0	0.29	0.01	57.56	56.35	114.19
Sex	AC1	UNK	UNK	SAT	24	0.11	4	13	7	10	3	0.65	0.06	43.46	32.52	76.18
	AC2	UNK	UNK	SAT	17	0.07	3	8	6	8	2	0.83	0.02	63.50	41.78	106.05
	AC3	UNK	UNK	SAT	31	0.17	27	0	4	8	4	0.75	0.02	44.63	16.76	61.72
	AC4	UNK	UNK	SAT	9	0.01	2	0	7	8	1	0.78	0.10	98.98	82.21	205.17
	AC5	UNK	UNK	SAT	9	0.00	0	0	9	9	0	0.77	0.09	100.20	100.11	205.50
	AC6	UNK	UNK	SAT	22	0.09	8	6	8	10	2	0.57	0.05	46.65	39.40	86.26
	AC7	UNK	UNK	UNK	13	0.04	0	7	6	11	5	0.63	0.08	86.51	52.15	141.19
	AC8	UNK	UNK	SAT	103	0.64	80	23	0	2	2	0.24	0.00	16.99	0.42	17.53
	AC9	UNK	UNK	SAT	332	2.08	161	171	0	1	1	0.20	0.00	5.28	0.17	5.56
	AC10	UNK	UNK	SAT	31	0.18	10	18	3	10	7	0.32	0.03	44.93	14.98	60.07
	AC11	UNK	UNK	UNK	9	0.00	0	0	9	9	0	0.12	0.04	100.15	100.13	200.73
	AC12	UNK	UNK	UNK	21	0.08	0	12	9	9	0	0.34	0.01	44.90	42.91	88.07