A HYPOTHESIS TESTS' RESULTS

This Appendix presents the hypotheses test results for each task and metric. We present the t-test results in a NxN table, where N is the number of assessed models. We dashed the table's diagonal to indicate we did not make a paired comparison of the same model. When the means results are equal, the t-test returns an undefined value. We present these cases when the cells under the diagonal have no value filled. We bolted all results that reject the null hypothesis are bolted.

Table 10: Accuracy t-test results for Titanic dataset

	UnfairLR	UnfairLR-decay	ZhangLDP	ZhangEqOdds	ZhangEqOpp	LAFTRdDP-0.2	LAFTRdDP-0.5	LAFTRdDP-0.7	LAFTRdDP-1.0	LAFTREqOdds-0.2	LAFTREqOdds-0.5	LAFTREqOdds-0.7	LAFTREqOdds-1.0	LAFTREqOpp-0.2	LAFTREqOpp-0.5	LAFTREqOpp-0.7	LAFTREqOpp-1.0	BEUTELdDP
UnfairLR	-																	
UnfairLR-decay	0.00023026	-																
ZhangLDP	0.0080003	0.0001995572	-															
ZhangEqOdds	0.304559	0.0002075585	0.117808	-														
ZhangEqOpp	0.51225	0.0001837533	0.86053	0.871219	-													
LAFTRdDP-0.2	0.43377	0.0001266099	0.183567	0.215116	0.256287	-												
LAFTRdDP-0.5	0.0446534	0.00012734	0.0229836	0.0230564	0.0239835	0.00206001	-											
LAFTRdDP-0.7	0.0364125	7.59292e-05	0.0242062	0.0255526	0.017326	0.0122172	0.105464	-										
LAFTRdDP-1.0	0.0233894	0.0001472266	0.017641	0.0189077	0.08863963	0.0216988	0.33206	0.654148	-									
LAFTREqOdds-0.2	0.572441	0.0001768996	0.433969	0.470621	0.402829	0.905727	0.108196	0.108196	0.0198788	-								
LAFTREqOdds-0.5	0.572441	0.0001768996	0.433969	0.470621	0.402829	0.905727	0.108196	0.108196	0.0198788	0.003210142	-							
LAFTREqOdds-0.7	0.572441	0.0001768996	0.433969	0.470621	0.402829	0.905727	0.108196	0.108196	0.0198788	0.003210142	0.003210142	-						
LAFTREqOdds-1.0	0.572441	0.0001768996	0.433969	0.470621	0.402829	0.905727	0.108196	0.108196	0.0198788	0.003210142	0.003210142	0.003210142	-					
LAFTREqOpp-0.2	0.00375982	0.0002278892	0.00418107	0.005024	0.00212713	0.0176028	0.175269	0.182696	0.497338	0.0105444	0.0105444	0.0105444	0.0105444	-				
LAFTREqOpp-0.5	0.00375982	0.0002278892	0.00418107	0.005024	0.00212713	0.0176028	0.175269	0.182696	0.497338	0.0105444	0.0105444	0.0105444	0.0105444		-			
LAFTREqOpp-0.7	0.00375982	0.0002278892	0.00418107	0.005024	0.00212713	0.0176028	0.175269	0.182696	0.497338	0.0105444	0.0105444	0.0105444	0.0105444			-		
LAFTREqOpp-1.0	0.00375982	0.0002278892	0.00418107	0.005024	0.00212713	0.0176028	0.175269	0.182696	0.497338	0.0105444	0.0105444	0.0105444	0.0105444				-	
BEUTELdDP	1.09728e-05	0.03598656	5.8456e-06	6.57382e-06	1.37817e-05	1.33334e-05	4.5945e-05	0.000200407	0.000210828	0.000222224	0.000222224	0.000222224	0.000222224	0.000240537	0.000240537	0.000240537	0.000240537	-

Table 11: DemDisp t-test results for Titanic dataset

	UnfairLR	UnfairLR-decay	ZhangdDP	ZhangEqOdds	ZhangEqOpp	LAFTRdDP-0.2	LAFTRdDP-0.5	LAFTRdDP-0.7	LAFTRdDP-1.0	LAFTRdEqOdds-0.2	LAFTRdEqOdds-0.5	LAFTRdEqOdds-0.7	LAFTRdEqOdds-1.0	LAFTRdEqOpp-0.2	LAFTRdEqOpp-0.5	LAFTRdEqOpp-0.7	LAFTRdEqOpp-1.0	BEUTELdDP
UnfairLR	-																	
UnfairLR-decay	2.22006e-05	-																
ZhangdDP	0.0434741	3.51775e-05	-															
ZhangEqOdds	0.0528358	3.52586e-05	0.72806	-														
ZhangEqOpp	0.0116988	2.82907e-05	0.000857	0.124094	-													
LAFTRdDP-0.2	0.42335	3.02235e-05	0.0799851	0.068094	0.0564408	-												
LAFTRdDP-0.5	0.0026986	0.000215864	0.000891085	0.000579785	0.00121755	0.000337263	-											
LAFTRdDP-0.7	0.000917337	0.00084282	0.000908349	0.000814917	0.00133976	9.47601e-05	0.0382887	-										
LAFTRdDP-1.0	0.00122218	0.00203897	0.00223834	0.00246287	0.00228778	0.00080311	0.369332	0.50097	-									
LAFTRdEqOdds-0.2	0.62217	0.000809744	0.144536	0.163679	0.0925939	0.955923	0.068028	0.0177	0.0143353	-								
LAFTRdEqOdds-0.5	0.62217	0.000809744	0.144536	0.163679	0.0925939	0.955923	0.068028	0.0177	0.0143353		-							
LAFTRdEqOdds-0.7	0.62217	0.000809744	0.144536	0.163679	0.0925939	0.955923	0.068028	0.0177	0.0143353			-						
LAFTRdEqOdds-1.0	0.62217	0.000809744	0.144536	0.163679	0.0925939	0.955923	0.068028	0.0177	0.0143353				-					
LAFTRdEqOpp-0.2	0.00343697	0.00797577	0.00249455	0.00264824	0.00230751	0.018038	0.346547	0.96571	0.67578	0.0123241	0.0123241	0.0123241	0.0123241	-				
LAFTRdEqOpp-0.5	0.00343697	0.00797577	0.00249455	0.00264824	0.00230751	0.018038	0.346547	0.96571	0.67578	0.0123241	0.0123241	0.0123241	0.0123241		-			
LAFTRdEqOpp-0.7	0.00343697	0.00797577	0.00249455	0.00264824	0.00230751	0.018038	0.346547	0.96571	0.67578	0.0123241	0.0123241	0.0123241	0.0123241			-		
LAFTRdEqOpp-1.0	0.00343697	0.00797577	0.00249455	0.00264824	0.00230751	0.018038	0.346547	0.96571	0.67578	0.0123241	0.0123241	0.0123241	0.0123241				-	
BEUTELdDP	0.0329164	0.215613	0.0323446	0.0334259	0.027792	0.0415468	0.219932	0.319916	0.214703	0.0480956	0.0480956	0.0480956	0.0480956	0.341307	0.341307	0.341307	0.341307	-

Table 12: DispEqOdds t-test results for Titanic dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	-																	
UnfairLR-decay	6.15438e-05	-																
Zhang4DP	0.0231616	0.000106632	-															
Zhang4EqOdds	0.0199864	6.5997e-05	0.151706	-														
Zhang4EqOpp	0.023807	0.000237936	0.0542516	0.384529	-													
LAFTR4DP-0.2	0.316632	9.00272e-05	0.00154637	0.0367923	0.0504345	-												
LAFTR4DP-0.5	0.0055359	0.00566202	0.000536242	0.000686592	0.00116126	0.0042402	-											
LAFTR4DP-0.7	0.00128758	0.00988101	0.000776635	0.000249998	0.000823147	0.000455799	0.023922	-										
LAFTR4DP-1.0	0.000640762	0.0304422	0.0140258	0.000054694	0.00110759	0.0051634	0.278914	0.884872	-									
LAFTR4EqOdds-0.2	0.306602	0.00493946	0.0140258	0.0180856	0.0162008	0.898853	0.0527645	0.017369	0.0164048	-								
LAFTR4EqOdds-0.5	0.306602	0.00493946	0.0140258	0.0180856	0.0162008	0.898853	0.0527645	0.017369	0.0164048	-	-							
LAFTR4EqOdds-0.7	0.306602	0.00493946	0.0140258	0.0180856	0.0162008	0.898853	0.0527645	0.017369	0.0164048	-	-	-						
LAFTR4EqOdds-1.0	0.306602	0.00493946	0.0140258	0.0180856	0.0162008	0.898853	0.0527645	0.017369	0.0164048	-	-	-	-					
LAFTR4EqOpp-0.2	0.0045572	0.0395546	0.00163824	0.000127736	0.000259813	0.0144813	0.702581	0.360134	0.262159	0.0153754	0.0153754	0.0153754	0.0153754	-				
LAFTR4EqOpp-0.5	0.0045572	0.0395546	0.00163824	0.000127736	0.000259813	0.0144813	0.702581	0.360134	0.262159	0.0153754	0.0153754	0.0153754	0.0153754	-	-			
LAFTR4EqOpp-0.7	0.0045572	0.0395546	0.00163824	0.000127736	0.000259813	0.0144813	0.702581	0.360134	0.262159	0.0153754	0.0153754	0.0153754	0.0153754	-	-	-		
LAFTR4EqOpp-1.0	0.0045572	0.0395546	0.00163824	0.000127736	0.000259813	0.0144813	0.702581	0.360134	0.262159	0.0153754	0.0153754	0.0153754	0.0153754	-	-	-	-	
BEUTEL4DP	0.487826	0.110734	0.299867	0.294581	0.26477	0.704641	0.493117	0.308879	0.27745	0.776709	0.776709	0.776709	0.776709	0.376528	0.376528	0.376528	0.376528	-

Table 13: DispEqOpp t-test results for Titanic dataset

	UnfairLR	UnfairLR-decay	ZhangDP	ZhangEqOdds	ZhangEqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTELdP
UnfairLR	-																	
UnfairLR-decay	1.98178e-05	-																
ZhangDP	0.0609167	0.000115342	-															
ZhangEqOdds	0.0609167	0.000115342	0.329804	-														
ZhangEqOpp	0.0274399	5.76391e-05	0.00178284	0.329804	-													
LAFTR4DP-0.2	0.00135477	0.000789217	0.00178284	0.00178284	0.00326366	-												
LAFTR4DP-0.5	0.000268499	0.0132267	0.000374593	0.000374593	0.000813915	4.40063e-05	-											
LAFTR4DP-0.7	4.10506e-05	0.0228214	0.000456132	0.000456132	0.000472613	0.000244552	0.0082108	-										
LAFTR4DP-1.0	0.000898081	0.028049	0.00150696	0.00150696	0.000692389	0.0126628	0.472019	0.479552	-									
LAFTR4EqOdds-0.2	0.0569269	0.00542025	0.00610717	0.00610717	0.00445207	0.759956	0.0491236	0.0258225	0.0437574	-								
LAFTR4EqOdds-0.5	0.0569269	0.00542025	0.00610717	0.00610717	0.00445207	0.759956	0.0491236	0.0258225	0.0437574	-	-							
LAFTR4EqOdds-0.7	0.0569269	0.00542025	0.00610717	0.00610717	0.00445207	0.759956	0.0491236	0.0258225	0.0437574	-	-	-						
LAFTR4EqOdds-1.0	0.0569269	0.00542025	0.00610717	0.00610717	0.00445207	0.759956	0.0491236	0.0258225	0.0437574	-	-	-	-					
LAFTR4EqOpp-0.2	0.00112641	0.0414516	0.00147207	0.00147207	0.000604776	0.0294963	0.698792	0.428973	0.607071	0.0248686	0.0248686	0.0248686	0.0248686	-				
LAFTR4EqOpp-0.5	0.00112641	0.0414516	0.00147207	0.00147207	0.000604776	0.0294963	0.698792	0.428973	0.607071	0.0248686	0.0248686	0.0248686	0.0248686	-	-			
LAFTR4EqOpp-0.7	0.00112641	0.0414516	0.00147207	0.00147207	0.000604776	0.0294963	0.698792	0.428973	0.607071	0.0248686	0.0248686	0.0248686	0.0248686	-	-	-		
LAFTR4EqOpp-1.0	0.00112641	0.0414516	0.00147207	0.00147207	0.000604776	0.0294963	0.698792	0.428973	0.607071	0.0248686	0.0248686	0.0248686	0.0248686	-	-	-	-	
BEUTELdP	0.0572937	0.0729939	0.0449842	0.0449842	0.02884	0.39683	0.790759	0.453735	0.536472	0.340328	0.340328	0.340328	0.340328	0.653725	0.653725	0.653725	0.653725	-

Table 14: FU-score (DemDisp) t-test results for Titanic dataset

	UnfairLR	UnfairLln-decay	ZhangLDP	ZhangLEqOdds	ZhangLEqOpp	LAFTRdLDP-0.2	LAFTRdLDP-0.5	LAFTRdLDP-0.7	LAFTRdLDP-1.0	LAFTRdEqOdds-0.2	LAFTRdEqOdds-0.5	LAFTRdEqOdds-0.7	LAFTRdEqOdds-1.0	LAFTRdEqOpp-0.2	LAFTRdEqOpp-0.5	LAFTRdEqOpp-0.7	LAFTRdEqOpp-1.0	BEUTELdDP
UnfairLR																		
UnfairLln-decay	0.00835088	-																
ZhangLDP	0.0673071	0.0478992	-															
ZhangLEqOdds	0.0661591	0.0506239	0.577423	-														
ZhangLEqOpp	0.0271712	0.050179	0.0885953	0.11707l	-													
LAFTRdLDP-0.2	0.39658	0.0156854	0.0921053	0.0739643	0.0594083	-												
LAFTRdLDP-0.5	0.00328988	0.00180787	0.000802264	0.00212766	0.00293349	0.00113225	-											
LAFTRdLDP-0.7	0.00152019	0.00197509	0.000263361	0.002116	0.0030538	0.000321792	0.0238783	-										
LAFTRdLDP-1.0	0.00226055	0.00309871	0.000521835	0.00481473	0.0053207	0.00494618	0.380344	0.458721	-									
LAFTRdEqOdds-0.2	0.851859	0.04728673	0.0906212	0.107157	0.0618697	0.775206	0.058418	0.028282	0.0316763	-								
LAFTRdEqOdds-0.5	0.851859	0.04728673	0.0906212	0.107157	0.0618697	0.775206	0.058418	0.028282	0.0316763	-	-							
LAFTRdEqOdds-0.7	0.851859	0.04728673	0.0906212	0.107157	0.0618697	0.775206	0.058418	0.028282	0.0316763	-	-	-						
LAFTRdEqOdds-1.0	0.851859	0.04728673	0.0906212	0.107157	0.0618697	0.775206	0.058418	0.028282	0.0316763	-	-	-						
LAFTRdEqOpp-0.2	0.00423564	0.00428387	0.000391803	0.003523228	0.004454858	0.0146623	0.56893	0.437087	0.096705	0.0218584	0.0218584	0.0218584	0.0218584	-				
LAFTRdEqOpp-0.5	0.00423564	0.00428387	0.000391803	0.003523228	0.004454858	0.0146623	0.56893	0.437087	0.096705	0.0218584	0.0218584	0.0218584	0.0218584	-	-			
LAFTRdEqOpp-0.7	0.00423564	0.00428387	0.000391803	0.003523228	0.004454858	0.0146623	0.56893	0.437087	0.096705	0.0218584	0.0218584	0.0218584	0.0218584	-	-	-		
LAFTRdEqOpp-1.0	0.00423564	0.00428387	0.000391803	0.003523228	0.004454858	0.0146623	0.56893	0.437087	0.096705	0.0218584	0.0218584	0.0218584	0.0218584	-	-	-		
BEUTELdDP	0.524731	0.284946	0.961611	0.941774	0.710948	0.358291	0.0651472	0.0281051	0.02201632	0.552308	0.552308	0.552308	0.552308	0.0380442	0.0380442	0.0380442	0.0380442	-

Table 15: FU-score (DispEqOdds) for Titanic dataset

	UnfairLR	UnfairLR-decay	ZhangIDP	ZhangIEqOdds	ZhangIEqOpp	LAFTRdDP-0.2	LAFTRdDP-0.5	LAFTRdDP-0.7	LAFTRdDP-1.0	LAFTRdEqOdds-0.2	LAFTRdEqOdds-0.5	LAFTRdEqOdds-0.7	LAFTRdEqOdds-1.0	LAFTRdEqOpp-0.2	LAFTRdEqOpp-0.5	LAFTRdEqOpp-0.7	LAFTRdEqOpp-1.0	BEUTEldDP
UnfairLR	0.00118624																	
UnfairLR-decay	0.0419506	-																
ZhangIDP	0.02897	0.00180849	-															
ZhangIEqOdds	0.043306	0.00180645	0.394363	-														
ZhangIEqOpp	0.303166	0.000769722	0.146556	0.184801	-													
LAFTRdDP-0.2	0.0128048	0.00234744	0.058631	0.0355293	0.050867	-												
LAFTRdDP-0.5	0.00696413	0.000483385	0.000426188	0.00174208	0.0024235	0.0174375	-											
LAFTRdDP-0.7	0.00454481	0.000438254	0.00244555	0.000933293	0.00168081	0.007955	0.00472428	-										
LAFTRdDP-1.0	0.58163	0.0006751	0.000346742	0.00169848	0.003243326	0.00872891	0.261562	0.962152	-									
LAFTRdEqOdds-0.2	0.58163	0.00189517	0.0146965	0.0115082	0.007799467	0.967473	0.0609386	0.0341508	0.0443463	-								
LAFTRdEqOdds-0.5	0.58163	0.00189517	0.0146965	0.0115082	0.007799467	0.967473	0.0609386	0.0341508	0.0443463	0.0803652	-							
LAFTRdEqOdds-0.7	0.58163	0.00189517	0.0146965	0.0115082	0.007799467	0.967473	0.0609386	0.0341508	0.0443463	0.0803652	0.0803652	-						
LAFTRdEqOdds-1.0	0.58163	0.00189517	0.0146965	0.0115082	0.007799467	0.967473	0.0609386	0.0341508	0.0443463	0.0803652	0.0803652	0.0803652	-					
LAFTRdEqOpp-0.2	0.0172711	0.00145062	0.000486995	0.00244083	0.007719349	0.0155922	0.408259	0.123616	0.0982226	0.0803652	0.0803652	0.0803652	0.0803652	-				
LAFTRdEqOpp-0.5	0.0172711	0.00145062	0.000486995	0.00244083	0.007719349	0.0155922	0.408259	0.123616	0.0982226	0.0803652	0.0803652	0.0803652	0.0803652	0.00842418	-			
LAFTRdEqOpp-0.7	0.0172711	0.00145062	0.000486995	0.00244083	0.007719349	0.0155922	0.408259	0.123616	0.0982226	0.0803652	0.0803652	0.0803652	0.0803652	0.00842418	0.00842418	-		
LAFTRdEqOpp-1.0	0.0172711	0.00145062	0.000486995	0.00244083	0.007719349	0.0155922	0.408259	0.123616	0.0982226	0.0803652	0.0803652	0.0803652	0.0803652	0.00842418	0.00842418	0.00842418	-	
BEUTEldDP	0.0164483	0.317014	0.0584049	0.0606543	0.133978	0.0150864	0.01119839	0.00993473	0.00696571	0.0328527	0.0328527	0.0328527	0.0328527	0.00842418	0.00842418	0.00842418	0.00842418	-

Table 16: FU-score (DispEqOpp) for Titanic dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	0.0150854																	
UnfairLR-decay	-	0.0276992																
Zhang4DP	0.0813774	0.0278067	-															
Zhang4EqOdds	0.078856	0.0278067	0.178939	-														
Zhang4EqOpp	0.0390229	0.0501385	0.29625	0.308761	-													
LAFTR4DP-0.2	0.000579089	0.0029498	0.00271022	0.0025574	0.00279908	-												
LAFTR4DP-0.5	0.000131342	0.000944257	0.000736207	0.000699203	0.000693483	0.000133216	-											
LAFTR4DP-0.7	0.000130614	0.00086072	0.0010502	0.000990174	0.000782315	0.000452565	0.0253197	-										
LAFTR4DP-1.0	0.000621049	0.001181324	0.00300891	0.00286089	0.00153837	0.0153791	0.518112	0.534362	-									
LAFTR4EqOdds-0.2	0.0675969	0.00822472	0.002690088	0.002267609	0.0014867	0.622986	0.0779957	0.0608582	0.0928945	-								
LAFTR4EqOdds-0.5	0.0675969	0.00822472	0.002690088	0.002267609	0.0014867	0.622986	0.0779957	0.0608582	0.0928945	-	-							
LAFTR4EqOdds-0.7	0.0675969	0.00822472	0.002690088	0.002267609	0.0014867	0.622986	0.0779957	0.0608582	0.0928945	-	-	-						
LAFTR4EqOdds-1.0	0.0675969	0.00822472	0.002690088	0.002267609	0.0014867	0.622986	0.0779957	0.0608582	0.0928945	0.0811994	0.0811994	0.0811994	-					
LAFTR4EqOpp-0.2	0.000440463	0.00272119	0.00217741	0.00020697	0.000034142	0.0424351	0.62268	0.15301	0.190456	0.0811994	0.0811994	0.0811994	0.0811994	-				
LAFTR4EqOpp-0.5	0.000440463	0.00272119	0.00217741	0.00020697	0.000034142	0.0424351	0.62268	0.15301	0.190456	0.0811994	0.0811994	0.0811994	0.0811994	-	-			
LAFTR4EqOpp-0.7	0.000440463	0.00272119	0.00217741	0.00020697	0.000034142	0.0424351	0.62268	0.15301	0.190456	0.0811994	0.0811994	0.0811994	0.0811994	-	-	-		
LAFTR4EqOpp-1.0	0.000440463	0.00272119	0.00217741	0.00020697	0.000034142	0.0424351	0.62268	0.15301	0.190456	0.0811994	0.0811994	0.0811994	0.0811994	-	-	-	-	
BEUTEL4DP	0.137496	0.312251	0.0645216	0.052484	0.787255	0.0274702	0.0113974	0.007765775	0.0067257	0.0625868	0.0625868	0.0625868	0.0625868	0.00897153	0.00897153	0.00897153	0.00897153	-

Table 17: Accuracy t-test results for German dataset

	UnfairLR	UnfairLR-decay	ZhangADP	ZhangEqOdds	ZhangEqOpp	LAFTRdDP-0.2	LAFTRdDP-0.5	LAFTRdDP-0.7	LAFTRdDP-1.0	LAFTRdEqOdds-0.2	LAFTRdEqOdds-0.5	LAFTRdEqOdds-0.7	LAFTRdEqOdds-1.0	LAFTRdEqOpp-0.2	LAFTRdEqOpp-0.5	LAFTRdEqOpp-0.7	LAFTRdEqOpp-1.0	BEUTELdDP
UnfairLR	-																	
UnfairLR-decay	0.306791	-																
ZhangADP	0.183567	0.183676	-															
ZhangEqOdds	0.136945	0.167103	0.373901	-														
ZhangEqOpp	0.362662	0.29815	1	0.748868	-													
LAFTRdDP-0.2	0.438199	0.601832	0.238028	0.15858	0.25851	-												
LAFTRdDP-0.5	0.135965	0.730399	0.0176321	**0.036352**	0.113539	0.337502	-											
LAFTRdDP-0.7	0.119055	0.850086	0.054217	**0.030466**	0.071852	0.134702	0.42617	-										
LAFTRdDP-1.0	0.234719	0.775076	0.106083	0.0628076	0.141927	0.189004	0.827965	0.373901	-									
LAFTRdEqOdds-0.2	0.31943	0.611529	0.128353	0.079488	0.201555	0.688457	0.704	**0.0341094**	0.208	-								
LAFTRdEqOdds-0.5	0.31943	0.611529	0.128353	0.079488	0.201555	0.688457	0.704	**0.0341094**	0.208	-	-							
LAFTRdEqOdds-0.7	0.31943	0.611529	0.128353	0.079488	0.201555	0.688457	0.704	**0.0341094**	0.208	-	-	-						
LAFTRdEqOdds-1.0	0.31943	0.611529	0.128353	0.079488	0.201555	0.688457	0.704	**0.0341094**	0.208	-	-	-	-					
LAFTRdEqOpp-0.2	0.163608	0.897595	0.0858104	0.053604	**0.03208899**	0.350815	0.674518	1	0.803333	0.600424	0.600424	0.600424	0.600424	-				
LAFTRdEqOpp-0.5	0.163608	0.897595	0.0858104	0.053604	**0.03208899**	0.350815	0.674518	1	0.803333	0.600424	0.600424	0.600424	0.600424	-	-			
LAFTRdEqOpp-0.7	0.163608	0.897595	0.0858104	0.053604	**0.03208899**	0.350815	0.674518	1	0.803333	0.600424	0.600424	0.600424	0.600424	0.659131	0.659131	-		
LAFTRdEqOpp-1.0	0.163608	0.897595	0.0858104	0.053604	**0.03208899**	0.350815	0.674518	1	0.803333	0.600424	0.600424	0.600424	0.600424	0.659131	0.659131	-	-	
BEUTELdDP	0.0625058	0.568882	**0.02271489**	**0.0256154**	0.105366	0.344976	0.387222	0.51157	0.481934	0.313323	0.313323	0.313323	0.313323	0.659131	0.659131	0.659131	0.659131	-

Table 18: DemDisp t-test results for German dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	-																	
UnfairLR-decay	0.0491535	-																
Zhang4DP	0.0491878	0.028407	-															
Zhang4EqOdds	0.194388	0.0314463	0.914128	-														
Zhang4EqOpp	0.201009	0.0345959	0.28447	0.307761	-													
LAFTR4DP-0.2	0.760115	0.0152871	0.302858	0.296848	0.307866	-												
LAFTR4DP-0.5	0.541042	0.00160958	0.245374	0.247676	0.303098	0.455189	-											
LAFTR4DP-0.7	0.47148	0.0173506	0.245877	0.263108	0.297871	0.327221	0.655237	-										
LAFTR4DP-1.0	0.550153	0.00563292	0.283083	0.299085	0.34437	0.360847	0.919533	0.640896	-									
LAFTR4EqOdds-0.2	0.458494	0.0027926	0.211052	0.23164	0.268919	0.440744	0.701552	0.81744	0.783898	-								
LAFTR4EqOdds-0.5	0.458494	0.0027926	0.211052	0.23164	0.268919	0.440744	0.701552	0.81744	0.783898	-	-							
LAFTR4EqOdds-0.7	0.458494	0.0027926	0.211052	0.23164	0.268919	0.440744	0.701552	0.81744	0.783898			-						
LAFTR4EqOdds-1.0	0.458494	0.0027926	0.211052	0.23164	0.268919	0.440744	0.701552	0.81744	0.783898				-					
LAFTR4EqOpp-0.2	0.768199	0.007366089	0.428271	0.45611	0.58021	0.929676	0.680053	0.545408	0.557592	0.490548	0.490548	0.490548	0.490548	-				
LAFTR4EqOpp-0.5	0.768199	0.007366089	0.428271	0.45611	0.58021	0.929676	0.680053	0.545408	0.557592	0.490548	0.490548	0.490548	0.490548	-	-			
LAFTR4EqOpp-0.7	0.768199	0.007366089	0.428271	0.45611	0.58021	0.929676	0.680053	0.545408	0.557592	0.490548	0.490548	0.490548	0.490548			-		
LAFTR4EqOpp-1.0	0.768199	0.007366089	0.428271	0.45611	0.58021	0.929676	0.680053	0.545408	0.557592	0.490548	0.490548	0.490548	0.490548				-	
BEUTEL4DP	0.0479632	0.373901	0.02276554	0.02803546	0.03231525	0.013088	0.00111499	0.0170566	0.005420771	0.00236269	0.00236269	0.00236269	0.00236269	0.0088721	0.0088721	0.0088721	0.0088721	-

Table 19: DispEqOdds t-test results for German dataset

	UnfairLR	UnfairLR-decay	ZhangfDP	ZhangfEqOdds	ZhangfEqOpp	LAFTRdDP-0.2	LAFTRdDP-0.5	LAFTRdDP-0.7	LAFTRdDP-1.0	LAFTRdEqOdds-0.2	LAFTRdEqOdds-0.5	LAFTRdEqOdds-0.7	LAFTRdEqOdds-1.0	LAFTRdEqOpp-0.2	LAFTRdEqOpp-0.5	LAFTRdEqOpp-0.7	LAFTRdEqOpp-1.0	BEUTELdDP
UnfairLR																		
UnfairLR-decay	0.00129466																	
ZhangfDP	0.14304	0.00455159																
ZhangfEqOdds	0.363574	0.00530081	0.592547															
ZhangfEqOpp	0.763703	0.018249	0.477311	0.480589														
LAFTRdDP-0.2	0.697123	0.0204406	0.805845	0.923645	0.860366													
LAFTRdDP-0.5	0.48764	0.0288559	0.315506	0.374278	0.525424	0.212976												
LAFTRdDP-0.7	0.292439	0.058224	0.207157	0.2297	0.348037	0.0871335	0.0960204											
LAFTRdDP-1.0	0.860962	0.00873719	0.410477	0.53513	0.779792	0.426602	0.355206	0.135798										
LAFTRdEqOdds-0.2	0.533043	0.002897786	0.239639	0.239293	0.478508	0.231589	0.715604	0.240055	0.599856									
LAFTRdEqOdds-0.5	0.533043	0.002897786	0.239639	0.239293	0.478508	0.231589	0.715604	0.240055	0.599856	-								
LAFTRdEqOdds-0.7	0.533043	0.002897786	0.239639	0.239293	0.478508	0.231589	0.715604	0.240055	0.599856	-	-							
LAFTRdEqOdds-1.0	0.533043	0.002897786	0.239639	0.239293	0.478508	0.231589	0.715604	0.240055	0.599856	-	-	-						
LAFTRdEqOpp-0.2	0.080417	0.0112619	0.580021	0.686297	0.875937	0.662289	0.0916445	0.0703506	0.838049	0.541676	0.541676	0.541676	0.541676					
LAFTRdEqOpp-0.5	0.080417	0.0112619	0.580021	0.686297	0.875937	0.662289	0.0916445	0.0703506	0.838049	0.541676	0.541676	0.541676	0.541676	-				
LAFTRdEqOpp-0.7	0.080417	0.0112619	0.580021	0.686297	0.875937	0.662289	0.0916445	0.0703506	0.838049	0.541676	0.541676	0.541676	0.541676	-	-			
LAFTRdEqOpp-1.0	0.080417	0.0112619	0.580021	0.686297	0.875937	0.662289	0.0916445	0.0703506	0.838049	0.541676	0.541676	0.541676	0.541676	-	-	-		
BEUTELdDP	0.0012675	0.373901	0.000898905	0.00452844	0.0177586	0.02166	0.0350064	0.0088271	0.00980094	0.003002007	0.003002007	0.003002007	0.003002007	0.0142295	0.0142295	0.0142295	0.0142295	-

Table 20: DispEqOpp t-test results for German dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	1.98178e-05	-																
UnfairLR-decay	0.0609167	0.000115342																
Zhang4DP	0.0609167	0.000115342	-															
Zhang4EqOdds	0.0274399	5.76391e-05	0.329804	-														
Zhang4EqOpp	0.00135477	0.000789217	0.00178284	0.00178284	-													
LAFTR4DP-0.2	0.000268499	0.0132267	0.000374593	0.000374593	0.00326366	4.40063e-05												
LAFTR4DP-0.5	4.10506e-05	0.0228214	0.000456132	0.000456132	0.000813915	0.000244552	-											
LAFTR4DP-0.7	0.000898081	0.028049	0.00150696	0.00150696	0.000692389	0.0126628	0.472019	-										
LAFTR4DP-1.0	0.0056269	0.00542025	0.00610717	0.00610717	0.00445207	0.759056	0.0491236	0.0258225	0.0437574									
LAFTR4EqOdds-0.2	0.0056269	0.00542025	0.00610717	0.00610717	0.00445207	0.759056	0.0491236	0.0258225	0.0437574	-								
LAFTR4EqOdds-0.5	0.0056269	0.00542025	0.00610717	0.00610717	0.00445207	0.759056	0.0491236	0.0258225	0.0437574		-							
LAFTR4EqOdds-0.7	0.0056269	0.00542025	0.00610717	0.00610717	0.00445207	0.759056	0.0491236	0.0258225	0.0437574			-						
LAFTR4EqOdds-1.0	0.0056269	0.00542025	0.00610717	0.00610717	0.00445207	0.759056	0.0491236	0.0258225	0.0437574									
LAFTR4EqOpp-0.2	0.00112641	0.0414516	0.00147207	0.00147207	0.000604776	0.0294963	0.698792	0.428973	0.607071	0.0248686	0.0248686	0.0248686	0.0248686					
LAFTR4EqOpp-0.5	0.00112641	0.0414516	0.00147207	0.00147207	0.000604776	0.0294963	0.698792	0.428973	0.607071	0.0248686	0.0248686	0.0248686	0.0248686	0.653725	-			
LAFTR4EqOpp-0.7	0.00112641	0.0414516	0.00147207	0.00147207	0.000604776	0.0294963	0.698792	0.428973	0.607071	0.0248686	0.0248686	0.0248686	0.0248686	0.653725		-		
LAFTR4EqOpp-1.0	0.00112641	0.0414516	0.00147207	0.00147207	0.000604776	0.0294963	0.698792	0.428973	0.607071	0.0248686	0.0248686	0.0248686	0.0248686	0.653725			-	
BEUTEL4DP	0.0572937	0.0723939	0.0449842	0.0449842	0.02884	0.39683	0.795759	0.453735	0.536472	0.340328	0.340328	0.340328	0.340328	0.453735	0.653725	0.653725	0.653725	-

Table 21: FU-score (DemDisp) t-test results for German dataset

	UnfairLR	UnfairLR-decay	ZhangDP	ZhangEqOdds	ZhangEqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTELdP
UnfairLR	-																	
UnfairLR-decay	0.170368	-																
ZhangDP	0.128194	0.124019	-															
ZhangEqOdds	0.321819	0.132528	0.713404	-														
ZhangEqOpp	0.918716	0.245869	0.099312	0.154076	-													
LAFTR4DP-0.2	0.949295	0.170636	0.552285	0.612092	0.922081	-												
LAFTR4DP-0.5	0.630883	0.0888806	0.36152	0.421506	0.722081	0.584109	-											
LAFTR4DP-0.7	0.584814	0.119981	0.36509	0.421791	0.687235	0.475305	0.501533	-										
LAFTR4DP-1.0	0.768148	0.0957443	0.438965	0.52147	0.820199	0.813001	0.526141	0.310442	-									
LAFTR4EqOdds-0.2	0.520338	0.102861	0.279881	0.350074	0.654601	0.558848	0.747654	0.903817	0.371996	-								
LAFTR4EqOdds-0.5	0.520338	0.102861	0.279881	0.350074	0.654601	0.558848	0.747654	0.903817	0.371996	-	-							
LAFTR4EqOdds-0.7	0.520338	0.102861	0.279881	0.350074	0.654601	0.558848	0.747654	0.903817	0.371996	-	-	-						
LAFTR4EqOdds-1.0	0.520338	0.102861	0.279881	0.350074	0.654601	0.558848	0.747654	0.903817	0.371996	-	-	-	-					
LAFTR4EqOpp-0.2	0.933995	0.102408	0.542068	0.635545	0.922603	0.989751	0.601217	0.503668	0.769881	0.413955	0.413955	0.413955	0.413955	-				
LAFTR4EqOpp-0.5	0.933995	0.102408	0.542068	0.635545	0.922603	0.989751	0.601217	0.503668	0.769881	0.413955	0.413955	0.413955	0.413955	-	-			
LAFTR4EqOpp-0.7	0.933995	0.102408	0.542068	0.635545	0.922603	0.989751	0.601217	0.503668	0.769881	0.413955	0.413955	0.413955	0.413955	-	-	-		
LAFTR4EqOpp-1.0	0.933995	0.102408	0.542068	0.635545	0.922603	0.989751	0.601217	0.503668	0.769881	0.413955	0.413955	0.413955	0.413955	-	-	-	-	
BEUTELdP	0.126079	0.587542	0.0920229	0.101739	0.218339	0.172327	0.0699114	0.1084	0.0717649	0.077985	0.077985	0.077985	0.077985	0.0865135	0.0865135	0.0865135	0.0865135	-

Table 22: FU-score (DispEqOdds) for German dataset

	UnfairLR	UnfairLR-decay	ZhangDP*	ZhangEqOdds	ZhangEqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	0.240511																	
UnfairLR-decay	0.161773	0.17472																
ZhangDP*	0.330638	0.181763	-															
ZhangEqOdds	0.545205	0.24778	0.956188	-														
ZhangEqOpp	0.92657	0.121257	0.284196	0.31359	-													
LAFTR4DP-0.2	0.76861	0.0653596	0.56589	0.598528	0.79949	-												
LAFTR4DP-0.5	0.761068	0.094979	0.48521	0.51493	0.66803	0.646649	-											
LAFTR4DP-0.7	0.807738	0.0733402	0.513233	0.547327	0.67994	0.608905	0.889974	-										
LAFTR4DP-1.0	0.678702	0.079691	0.539739	0.575583	0.710956	0.767214	0.965734	0.822818	-									
LAFTR4EqOdds-0.2	0.678702	0.079691	0.433313	0.474946	0.613121	0.570789	0.620959	0.75733	0.424752	-								
LAFTR4EqOdds-0.5	0.678702	0.079691	0.433313	0.474946	0.613121	0.570789	0.620959	0.75733	0.424752	-	-							
LAFTR4EqOdds-0.7	0.678702	0.079691	0.433313	0.474946	0.613121	0.570789	0.620959	0.75733	0.424752	-	-	-						
LAFTR4EqOdds-1.0	0.678702	0.079691	0.433313	0.474946	0.613121	0.570789	0.620959	0.75733	0.424752	-	-	-	-					
LAFTR4EqOpp-0.2	0.949119	0.0905733	0.709419	0.745685	0.880363	0.89069	0.573546	0.516228	0.41542	0.257009	0.257009	0.257009	0.257009	-				
LAFTR4EqOpp-0.5	0.949119	0.0905733	0.709419	0.745685	0.880363	0.89069	0.573546	0.516228	0.41542	0.257009	0.257009	0.257009	0.257009	-	-			
LAFTR4EqOpp-0.7	0.949119	0.0905733	0.709419	0.745685	0.880363	0.89069	0.573546	0.516228	0.41542	0.257009	0.257009	0.257009	0.257009	-	-	-		
LAFTR4EqOpp-1.0	0.949119	0.0905733	0.709419	0.745685	0.880363	0.89069	0.573546	0.516228	0.41542	0.257009	0.257009	0.257009	0.257009	-	-	-	-	
BEUTEL4DP	0.208957	0.550229	0.14394	0.15376	0.2183894	0.0971376	0.0279495	0.0649025	0.0414791	0.0439668	0.0439668	0.0439668	0.0439668	0.0089468	0.0089468	0.0089468	0.0089468	-

Table 23: FU-score (DispEqOpp) for German dataset

	UnfairLR	UnfairLR-decay	ZhangDP	ZhangEqOdds	ZhangEqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	-																	
UnfairLR-decay	0.372113	-																
ZhangDP	0.640827	0.402464	-															
ZhangEqOdds	0.850734	0.463396	0.276611	-														
ZhangEqOpp	0.734964	0.589119	0.424061	0.766963	-													
LAFTR4DP-0.2	0.432749	0.162834	0.672349	0.516909	0.503992	-												
LAFTR4DP-0.5	0.847884	0.205831	0.984216	0.8401	0.801092	0.367115	-											
LAFTR4DP-0.7	0.990817	0.182457	0.880147	0.945951	0.884192	0.308855	0.35855	-										
LAFTR4DP-1.0	0.453289	0.194053	0.709107	0.548817	0.556102	0.798341	0.251232	0.251666	-									
LAFTR4EqOdds-0.2	0.658251	0.126251	0.961225	0.713487	0.687567	0.449795	0.86947	0.53382	0.471835	-								
LAFTR4EqOdds-0.5	0.658251	0.126251	0.961225	0.713487	0.687567	0.449795	0.86947	0.53382	0.471835	-	-							
LAFTR4EqOdds-0.7	0.658251	0.126251	0.961225	0.713487	0.687567	0.449795	0.86947	0.53382	0.471835	-	-	-						
LAFTR4EqOdds-1.0	0.658251	0.126251	0.961225	0.713487	0.687567	0.449795	0.86947	0.53382	0.471835	-	-	-	-					
LAFTR4EqOpp-0.2	0.199	0.120964	0.488272	0.351519	0.37427	0.900047	0.218766	0.166049	0.48301	0.163	0.163	0.163	0.163	-				
LAFTR4EqOpp-0.5	0.199	0.120964	0.488272	0.351519	0.37427	0.900047	0.218766	0.166049	0.48301	0.163	0.163	0.163	0.163	-	-			
LAFTR4EqOpp-0.7	0.199	0.120964	0.488272	0.351519	0.37427	0.900047	0.218766	0.166049	0.48301	0.163	0.163	0.163	0.163	-	-	-		
LAFTR4EqOpp-1.0	0.199	0.120964	0.488272	0.351519	0.37427	0.900047	0.218766	0.166049	0.48301	0.163	0.163	0.163	0.163	-	-	-	-	
BEUTEL4DP	0.338439	0.573436	0.363427	0.439576	0.630264	0.195737	0.253256	0.25945	0.197361	0.0941543	0.0941543	0.0941543	0.0941543	0.110777	0.110777	0.110777	0.110777	-

Table 24: Accuracy t-test results for Adult dataset

	UnfairLR	UnfairLR-decay	ZhangADP	ZhangAEqOdds	ZhangAEqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTELdDP
UnfairLR	0.000301503																	
UnfairLR-decay	0.00034997	-																
ZhangADP	0.132777	0.00030937	-															
ZhangAEqOdds	0.143306	0.000130591	0.306951	-														
ZhangAEqOpp	0.581648	0.000207414	0.145197	0.172379	-													
LAFTR4DP-0.2	0.31907	7.32451e-05	0.201786	0.195742	0.583122	-												
LAFTR4DP-0.5	0.257908	7.90819e-06	0.175545	0.16047	0.259088	0.296019	-											
LAFTR4DP-0.7	0.188425	0.000206233	0.119081	0.11803	0.12603	0.299682	0.46976	-										
LAFTR4DP-1.0	0.0190628	0.00087269	0.00872649	0.06684868	0.00899122	0.0842712	0.203912	0.3922	-									
LAFTR4EqOdds-0.2	0.100996	8.96846e-05	0.0447931	0.0398621	0.0249743	0.420812	1	0.315354	0.000692789	-								
LAFTR4EqOdds-0.5	0.100996	8.96846e-05	0.0447931	0.0398621	0.0249743	0.420812	1	0.315354	0.000692789	0.0183996	-							
LAFTR4EqOdds-0.7	0.100996	8.96846e-05	0.0447931	0.0398621	0.0249743	0.420812	1	0.315354	0.000692789	0.0183996	0.0183996	-						
LAFTR4EqOdds-1.0	0.100996	8.96846e-05	0.0447931	0.0398621	0.0249743	0.420812	1	0.315354	0.000692789	0.0183996	0.0183996	0.0183996	-					
LAFTR4EqOpp-0.2	0.0324334	6.12996e-05	0.0244408	0.022689	0.0176008	0.0678381	0.123311	0.0887613	0.356467	0.0183996	0.0183996	0.0183996	0.0183996	-				
LAFTR4EqOpp-0.5	0.0324334	6.12996e-05	0.0244408	0.022689	0.0176008	0.0678381	0.123311	0.0887613	0.356467	0.0183996	0.0183996	0.0183996	0.0183996	-	-			
LAFTR4EqOpp-0.7	0.0324334	6.12996e-05	0.0244408	0.022689	0.0176008	0.0678381	0.123311	0.0887613	0.356467	0.0183996	0.0183996	0.0183996	0.0183996	-	-	-		
LAFTR4EqOpp-1.0	0.0324334	6.12996e-05	0.0244408	0.022689	0.0176008	0.0678381	0.123311	0.0887613	0.356467	0.0183996	0.0183996	0.0183996	0.0183996	-	-	-	-	
BEUTELdDP	0.0339578	0.0442474	0.0339444	0.0337697	0.0345178	0.0342045	0.0348654	0.0361078	0.0357127	0.0349721	0.0349721	0.0349721	0.0349721	0.0360691	0.0360691	0.0360691	0.0360691	-

Table 25: DemDisp t-test results for Adult dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	-																	
UnfairLR-decay	0.0887488	-																
Zhang4DP	0.128857	0.36039	-															
Zhang4EqOdds	0.0375136	0.50698	0.0290636	-														
Zhang4EqOpp	0.0078059	0.233847	0.260882	0.0251998	-													
LAFTR4DP-0.2	0.551137	0.348943	0.409343	0.35877	0.41604	-												
LAFTR4DP-0.5	0.0131745	0.0129121	0.0123043	0.0108069	0.0110973	0.00163237	-											
LAFTR4DP-0.7	0.0012404	0.00144438	0.0012802	0.00105074	0.0010901	0.000130648	0.00174721	-										
LAFTR4DP-1.0	0.000825955	0.000885449	0.000753091	0.000668863	0.000724075	0.000156555	0.00159093	0.00161048	-									
LAFTR4EqOdds-0.2	0.00378434	0.000366727	0.00320062	0.00281524	0.00312117	0.000487783	0.0229644	0.0140474	3.5166e-05	-								
LAFTR4EqOdds-0.5	0.00378434	0.000366727	0.00320062	0.00281524	0.00312117	0.000487783	0.0229644	0.0140474	3.5166e-05		-							
LAFTR4EqOdds-0.7	0.00378434	0.000366727	0.00320062	0.00281524	0.00312117	0.000487783	0.0229644	0.0140474	3.5166e-05			-						
LAFTR4EqOdds-1.0	0.00378434	0.000366727	0.00320062	0.00281524	0.00312117	0.000487783	0.0229644	0.0140474	3.5166e-05			-	-					
LAFTR4EqOpp-0.2	0.00110945	0.00117479	0.00100632	0.000896221	0.000975146	0.0002215802	0.002385	0.00418064	0.0198857	0.000138426	0.000138426	0.000138426	0.000138426	-				
LAFTR4EqOpp-0.5	0.00110945	0.00117479	0.00100632	0.000896221	0.000975146	0.0002215802	0.002385	0.00418064	0.0198857	0.000138426	0.000138426	0.000138426	0.000138426	-	-			
LAFTR4EqOpp-0.7	0.00110945	0.00117479	0.00100632	0.000896221	0.000975146	0.0002215802	0.002385	0.00418064	0.0198857	0.000138426	0.000138426	0.000138426	0.000138426			-		
LAFTR4EqOpp-1.0	0.00110945	0.00117479	0.00100632	0.000896221	0.000975146	0.0002215802	0.002385	0.00418064	0.0198857	0.000138426	0.000138426	0.000138426	0.000138426				-	
BEUTEL4DP	0.516506	0.496116	0.500726	0.50681	0.512633	0.548259	0.651313	0.786726	0.800221	0.745043	0.745043	0.745043	0.745043	0.879551	0.879551	0.879551	0.879551	-

Table 26: DispEqOdds t-test results for Adult dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	-																	
UnfairLR-decay	0.000282058	-																
Zhang4DP	0.302204	0.000626422	-															
Zhang4EqOdds	0.112895	0.000863183	0.0205415	-														
Zhang4EqOpp	0.261813	0.000562228	0.491375	0.0846226	-													
LAFTR4DP-0.2	0.036364	0.000259975	0.0296758	0.0285519	0.0332979	-												
LAFTR4DP-0.5	0.000844861	1.18933e-05	0.0011189	0.00118616	0.0010178	0.00124668	-											
LAFTR4DP-0.7	0.000439075	3.4987e-05	0.000273489	0.000322328	0.00035619	0.000196314	0.0492506	-										
LAFTR4DP-1.0	0.0012817	0.000128477	0.000665723	0.000719869	0.000893296	0.00089541	0.495197	0.0492839	-									
LAFTR4EqOdds-0.2	0.000101185	4.68349e-06	6.85322e-05	8.76378e-05	0.000103827	0.000104355	0.0310549	0.52749	0.130242	-								
LAFTR4EqOdds-0.5	0.000101185	4.68349e-06	6.85322e-05	8.76378e-05	0.000103827	0.000104355	0.0310549	0.52749	0.130242	-	-							
LAFTR4EqOdds-0.7	0.000101185	4.68349e-06	6.85322e-05	8.76378e-05	0.000103827	0.000104355	0.0310549	0.52749	0.130242	-	-	-						
LAFTR4EqOdds-1.0	0.000101185	4.68349e-06	6.85322e-05	8.76378e-05	0.000103827	0.000104355	0.0310549	0.52749	0.130242	-	-	-	-					
LAFTR4EqOpp-0.2	0.00457303	0.000303969	0.00274261	0.00276722	0.00356088	0.0176659	0.921742	0.0871158	0.294073	0.12373	0.12373	0.12373	0.12373	-				
LAFTR4EqOpp-0.5	0.00457303	0.000303969	0.00274261	0.00276722	0.00356088	0.0176659	0.921742	0.0871158	0.294073	0.12373	0.12373	0.12373	0.12373	-	-			
LAFTR4EqOpp-0.7	0.00457303	0.000303969	0.00274261	0.00276722	0.00356088	0.0176659	0.921742	0.0871158	0.294073	0.12373	0.12373	0.12373	0.12373	-	-	-		
LAFTR4EqOpp-1.0	0.00457303	0.000303969	0.00274261	0.00276722	0.00356088	0.0176659	0.921742	0.0871158	0.294073	0.12373	0.12373	0.12373	0.12373	-	-	-	-	
BEUTEL4DP	0.574566	0.834495	0.889296	0.8985	0.883707	0.757351	0.551342	0.499898	0.54679	0.482322	0.482322	0.482322	0.482322	0.570915	0.570915	0.570915	0.570915	-

Table 27: DispEqOpp t-test results for Adult dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	-																	
UnfairLR-decay	0.000429223	-																
Zhang4DP	0.427411	0.000691938	-															
Zhang4EqOdds	0.180239	0.00105838	0.0739817	-														
Zhang4EqOpp	0.450819	0.0007683	0.588762	0.11669	-													
LAFTR4DP-0.2	0.0785656	2.16918e-05	0.00825064	0.00990919	0.0106078	-												
LAFTR4DP-0.5	0.00939411	1.90098e-06	0.000560706	0.00063794	0.000536319	0.00120586	-											
LAFTR4DP-0.7	0.000387995	4.1477e-05	0.000167582	0.000217203	0.00032517	0.00125622	0.307127	-										
LAFTR4DP-1.0	0.00518168	0.000424428	0.00276141	0.00264016	0.00396977	0.0550082	0.28871	0.0154498	-									
LAFTR4EqOdds-0.2	3.02127e-05	2.17103e-06	1.38489e-06	2.45666e-05	4.11317e-05	0.000157389	0.0409063	0.192571	0.0336427	-								
LAFTR4EqOdds-0.5	3.02127e-05	2.17103e-06	1.38489e-06	2.45666e-05	4.11317e-05	0.000157389	0.0409063	0.192571	0.0336427	-	-							
LAFTR4EqOdds-0.7	3.02127e-05	2.17103e-06	1.38489e-06	2.45666e-05	4.11317e-05	0.000157389	0.0409063	0.192571	0.0336427	-	-	-						
LAFTR4EqOdds-1.0	3.02127e-05	2.17103e-06	1.38489e-06	2.45666e-05	4.11317e-05	0.000157389	0.0409063	0.192571	0.0336427	-	-	-	-					
LAFTR4EqOpp-0.2	0.0191525	0.00103982	0.0119188	0.0109276	0.0161129	0.162285	0.233962	0.0421432	0.348698	0.0450488	0.0450488	0.0450488	0.0450488	-				
LAFTR4EqOpp-0.5	0.0191525	0.00103982	0.0119188	0.0109276	0.0161129	0.162285	0.233962	0.0421432	0.348698	0.0450488	0.0450488	0.0450488	0.0450488	-	-			
LAFTR4EqOpp-0.7	0.0191525	0.00103982	0.0119188	0.0109276	0.0161129	0.162285	0.233962	0.0421432	0.348698	0.0450488	0.0450488	0.0450488	0.0450488	-	-	-		
LAFTR4EqOpp-1.0	0.0191525	0.00103982	0.0119188	0.0109276	0.0161129	0.162285	0.233962	0.0421432	0.348698	0.0450488	0.0450488	0.0450488	0.0450488	-	-	-	-	
BEUTEL4DP	0.993643	0.505026	0.990027	0.974472	0.998201	0.752679	0.438507	0.424828	0.560426	0.368688	0.368688	0.368688	0.368688	0.000774	0.000774	0.000774	0.000774	-

Table 28: FU-score (DemDisp) t-test results for Adult dataset

	UnfairLR	UnfairLR-decay	ZhangdDP	ZhangEqOdds	ZhangdEqOpp	LAFTRdDP-0.2	LAFTRdDP-0.5	LAFTRdDP-0.7	LAFTRdDP-1.0	LAFTRdEqOdds-0.2	LAFTRdEqOdds-0.5	LAFTRdEqOdds-0.7	LAFTRdEqOdds-1.0	LAFTRdEqOpp-0.2	LAFTRdEqOpp-0.5	LAFTRdEqOpp-0.7	LAFTRdEqOpp-1.0	BEUTELdDP
UnfairLR	-																	
UnfairLR-decay	0.000237571	-																
ZhangdDP	0.307002	0.00112299	-															
ZhangEqOdds	0.0943987	0.00143003	0.0753423	-														
ZhangdEqOpp	0.163173	0.000552393	0.963239	0.335354	-													
LAFTRdDP-0.2	0.619479	0.0387404	0.512756	0.452538	0.482396	-												
LAFTRdDP-0.5	0.02215629	0.00273278	0.0221829	0.0191351	0.0161524	0.00134925	-											
LAFTRdDP-0.7	0.00163725	0.000465405	0.00173446	0.0015079	0.00126685	3.85312e-05	0.000739605	-										
LAFTRdDP-1.0	0.000683311	0.000276518	0.0007456	0.000591646	0.00054814	9.14283e-05	0.00118907	0.000216988	-									
LAFTRdEqOdds-0.2	0.00389917	0.000959167	0.00360119	0.00317155	0.002902272	0.000310774	0.0180726	0.0231758	2.60458e-05	-								
LAFTRdEqOdds-0.5	0.00389917	0.000959167	0.00360119	0.00317155	0.002902272	0.000310774	0.0180726	0.0231758	2.60458e-05	-	-							
LAFTRdEqOdds-0.7	0.00389917	0.000959167	0.00360119	0.00317155	0.002902272	0.000310774	0.0180726	0.0231758	2.60458e-05	-	-	-						
LAFTRdEqOdds-1.0	0.00389917	0.000959167	0.00360119	0.00317155	0.002902272	0.000310774	0.0180726	0.0231758	2.60458e-05	-	-	-	-					
LAFTRdEqOpp-0.2	0.00100016	0.000385471	0.000997052	0.000877575	0.000811694	9.20829e-05	0.00137113	0.0034603	0.014876	3.83508e-05	3.83508e-05	3.83508e-05	3.83508e-05	-				
LAFTRdEqOpp-0.5	0.00100016	0.000385471	0.000997052	0.000877575	0.000811694	9.20829e-05	0.00137113	0.0034603	0.014876	3.83508e-05	3.83508e-05	3.83508e-05	3.83508e-05	-	-			
LAFTRdEqOpp-0.7	0.00100016	0.000385471	0.000997052	0.000877575	0.000811694	9.20829e-05	0.00137113	0.0034603	0.014876	3.83508e-05	3.83508e-05	3.83508e-05	3.83508e-05	-	-	-		
LAFTRdEqOpp-1.0	0.00100016	0.000385471	0.000997052	0.000877575	0.000811694	9.20829e-05	0.00137113	0.0034603	0.014876	3.83508e-05	3.83508e-05	3.83508e-05	3.83508e-05	-	-	-	-	
BEUTELdDP	0.405412	0.460605	0.411706	0.44132	0.411448	0.402048	0.346719	0.297502	0.267543	0.312966	0.312966	0.312966	0.312966	0.271594	0.271594	0.271594	0.271594	-

Table 29: FU-score (DispEqOdds) for Adult dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	-																	
UnfairLR-decay	0.000128288	-																
Zhang4DP	0.02943	0.0002676622	-															
Zhang4EqOdds	0.189135	0.000364167	0.0324044	-														
Zhang4EqOpp	0.30726	0.000304291	0.968243	0.221168	-													
LAFTR4DP-0.2	0.0495543	6.84351e-05	0.0480658	0.00185829	0.0440484	0.0411541	-											
LAFTR4DP-0.5	0.00123468	2.58889e-06	0.00180284	0.00185829	0.00131691	0.000971542	-											
LAFTR4DP-0.7	0.000970081	2.23027e-05	0.000666834	0.000751759	0.000626521	0.000672873	0.079408	-										
LAFTR4DP-1.0	0.000198798	6.0118e-05	0.00110517	0.00119067	0.00110053	0.0078192	0.677508	0.0394154	-									
LAFTR4EqOdds-0.2	0.000127488	2.52676e-06	9.31742e-05	0.000123286	0.000100104	0.000172276	0.0310786	0.475859	0.098299	-								
LAFTR4EqOdds-0.5	0.000127488	2.52676e-06	9.31742e-05	0.000123286	0.000100104	0.000172276	0.0310786	0.475859	0.098299		-							
LAFTR4EqOdds-0.7	0.000127488	2.52676e-06	9.31742e-05	0.000123286	0.000100104	0.000172276	0.0310786	0.475859	0.098299			-						
LAFTR4EqOdds-1.0	0.000127488	2.52676e-06	9.31742e-05	0.000123286	0.000100104	0.000172276	0.0310786	0.475859	0.098299				-					
LAFTR4EqOpp-0.2	0.00759075	0.000188787	0.00494627	0.00507505	0.00517832	0.0315034	0.867503	0.0687424	0.27123	0.100922	0.100922	0.100922		-				
LAFTR4EqOpp-0.5	0.00759075	0.000188787	0.00494627	0.00507505	0.00517832	0.0315034	0.867503	0.0687424	0.27123	0.100922	0.100922	0.100922			-			
LAFTR4EqOpp-0.7	0.00759075	0.000188787	0.00494627	0.00507505	0.00517832	0.0315034	0.867503	0.0687424	0.27123	0.100922	0.100922	0.100922				-		
LAFTR4EqOpp-1.0	0.00759075	0.000188787	0.00494627	0.00507505	0.00517832	0.0315034	0.867503	0.0687424	0.27123	0.100922	0.100922	0.100922		0.156209	0.156209	0.156209	-	
BEUTEL4DP	0.19978	0.302229	0.20648	0.207604	0.204137	0.179642	0.142401	0.1397	0.149624	0.133395	0.133395	0.133395		0.156209	0.156209	0.156209	0.156209	-

Table 30: FU-score (DispEqOpp) for Adult dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0	BEUTEL4DP
UnfairLR	-																	
UnfairLR-decay	0.000256083	-																
Zhang4DP	0.555658	0.0009423537	-															
Zhang4EqOdds	0.235763	0.0006303314	0.0765191	-														
Zhang4EqOpp	0.449043	0.000436926	0.820021	0.199853	-													
LAFTR4DP-0.2	0.010151	1.30192e-05	0.0120416	0.0136883	0.0127845	-												
LAFTR4DP-0.5	0.000413441	4.27811e-07	0.00064486	0.00752333	0.000572306	0.000929392	-											
LAFTR4DP-0.7	0.000607355	3.88867e-05	0.000333096	0.000416403	0.000496184	0.00239513	0.393934	-										
LAFTR4DP-1.0	0.0006647457	0.000278707	0.0036030347	0.00346549	0.0045374	0.0078268	0.260413	0.0152745	-									
LAFTR4EqOdds-0.2	4.04573e-05	4.04573e-06	1.83187e-06	3.54986e-05	4.51749e-05	0.000289595	0.0408934	0.260345	0.0322438	-								
LAFTR4EqOdds-0.5	4.04573e-05	3.47043e-06	1.83187e-06	3.54986e-05	4.51749e-05	0.000289595	0.0408934	0.260345	0.0322438	-								
LAFTR4EqOdds-0.7	4.04573e-05	3.47043e-06	1.83187e-06	3.54986e-05	4.51749e-05	0.000289595	0.0408934	0.260345	0.0322438	-								
LAFTR4EqOdds-1.0	4.04573e-05	3.47043e-06	1.83187e-06	3.54986e-05	4.51749e-05	0.000289595	0.0408934	0.260345	0.0322438	0.0453037	0.0453037	0.0453037	0.0453037					
LAFTR4EqOpp-0.2	0.02653525	0.0006682339	0.0162636	0.0150708	0.01998	0.220219	0.215172	0.04420567	0.321647	0.0453037	0.0453037	0.0453037	0.0453037	-				
LAFTR4EqOpp-0.5	0.02653525	0.0006682339	0.0162636	0.0150708	0.01998	0.220219	0.215172	0.04420567	0.321647	0.0453037	0.0453037	0.0453037	0.0453037	-	-			
LAFTR4EqOpp-0.7	0.02653525	0.0006682339	0.0162636	0.0150708	0.01998	0.220219	0.215172	0.04420567	0.321647	0.0453037	0.0453037	0.0453037	0.0453037	-	-	-		
LAFTR4EqOpp-1.0	0.02653525	0.0006682339	0.0162636	0.0150708	0.01998	0.220219	0.215172	0.04420567	0.321647	0.0453037	0.0453037	0.0453037	0.0453037	0.167669	0.167669	0.167669	-	
BEUTEL4DP	0.223749	0.437840	0.233228	0.236962	0.229055	0.175483	0.121538	0.127855	0.155908	0.113453	0.113453	0.113453	0.113453	0.167669	0.167669	0.167669	0.167669	-

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Table 31: Accuracy t-test results for Adult (race) dataset

	UnfairLR	UnfairLR-decay	ZhangDP	ZhangEqOdds	ZhangEqOpp	LAFTRdDP-0.2	LAFTRdDP-0.5	LAFTRdDP-0.7	LAFTRdDP-1.0	LAFTRdEqOdds-0.2	LAFTRdEqOdds-0.5	LAFTRdEqOdds-0.7	LAFTRdEqOdds-1.0	LAFTRdEqOpp-0.2	LAFTRdEqOpp-0.5	LAFTRdEqOpp-0.7	LAFTRdEqOpp-1.0
UnfairLR	-																
UnfairLR-decay	0.000301503	-															
ZhangDP	0.512231	0.000203606	-														
ZhangEqOdds	0.726169	0.00017923	0.484494	-													
ZhangEqOpp	0.329139	0.0002020269	0.818755	0.802395	-												
LAFTRdDP-0.2	0.84494	0.000272957	0.732488	0.972208	0.915907	-											
LAFTRdDP-0.5	0.819807	6.1607e-05	0.953025	0.845334	0.949074	0.854204	-										
LAFTRdDP-0.7	0.638871	7.37986e-05	0.84691	0.607379	0.757533	0.51692	0.453799	-									
LAFTRdDP-1.0	0.225705	0.000238436	0.579645	0.0528402	0.338849	0.196196	0.735954	0.882672	-								
LAFTRdEqOdds-0.2	0.249057	0.000107301	0.367407	0.0861819	0.300406	0.103184	0.417927	0.447589	0.512039	-							
LAFTRdEqOdds-0.5	0.249057	0.000107301	0.367407	0.0861819	0.300406	0.103184	0.417927	0.447589	0.512039		-						
LAFTRdEqOdds-0.7	0.249057	0.000107301	0.367407	0.0861819	0.300406	0.103184	0.417927	0.447589	0.512039			-					
LAFTRdEqOdds-1.0	0.249057	0.000107301	0.367407	0.0861819	0.300406	0.103184	0.417927	0.447589	0.512039				-				
LAFTRdEqOpp-0.2	0.0424116	0.000353764	0.096868	0.0061463	0.0466602	0.000602057	0.251639	0.210078	0.00531119	0.110006	0.110006	0.110006	0.110006	-			
LAFTRdEqOpp-0.5	0.0424116	0.000353764	0.096868	0.0061463	0.0466602	0.000602057	0.251639	0.210078	0.00531119	0.110006	0.110006	0.110006	0.110006		-		
LAFTRdEqOpp-0.7	0.0424116	0.000353764	0.096868	0.0061463	0.0466602	0.000602057	0.251639	0.210078	0.00531119	0.110006	0.110006	0.110006	0.110006			-	
LAFTRdEqOpp-1.0	0.0424116	0.000353764	0.096868	0.0061463	0.0466602	0.000602057	0.251639	0.210078	0.00531119	0.110006	0.110006	0.110006	0.110006				-

Table 32: DemDisp t-test results for Titanic dataset

	UnfairLR	UnfairLR-decay	Zhang4DP	Zhang4EqOdds	Zhang4EqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0
UnfairLR	-																
UnfairLR-decay	0.00503195	-															
Zhang4DP	0.0354938	0.00708848	-														
Zhang4EqOdds	0.090037	0.004462702	0.000264738	-													
Zhang4EqOpp	0.139673	0.00561368	0.090771	0.0135056	-												
LAFTR4DP-0.2	0.0178578	0.0187615	0.0606367	0.01409	0.0174894	-											
LAFTR4DP-0.5	0.0672063	0.0379025	0.153954	0.0575348	0.0784625	0.621294	-										
LAFTR4DP-0.7	0.00235751	0.00202795	0.00345537	0.00174946	0.00297609	0.0648421	0.21367	-									
LAFTR4DP-1.0	0.00428768	0.0833621	0.00817118	0.00373098	0.00429872	0.0168582	0.02219	0.186152	-								
LAFTR4EqOdds-0.2	0.0276006	0.0312324	0.0615902	0.0185746	0.0288709	0.577786	0.87917	0.0411657	0.00560455	-							
LAFTR4EqOdds-0.5	0.0276006	0.0312324	0.0615902	0.0185746	0.0288709	0.577786	0.87917	0.0411657	0.00560455		-						
LAFTR4EqOdds-0.7	0.0276006	0.0312324	0.0615902	0.0185746	0.0288709	0.577786	0.87917	0.0411657	0.00560455			-					
LAFTR4EqOdds-1.0	0.0276006	0.0312324	0.0615902	0.0185746	0.0288709	0.577786	0.87917	0.0411657	0.00560455				-				
LAFTR4EqOpp-0.2	0.0017796	0.137607	0.003069068	0.00160825	0.00176212	0.00573337	0.00765081	0.0145814	0.0001167922	0.00184411	0.00184411	0.00184411	0.00184411	-			
LAFTR4EqOpp-0.5	0.0017796	0.137607	0.003069068	0.00160825	0.00176212	0.00573337	0.00765081	0.0145814	0.0001167922	0.00184411	0.00184411	0.00184411	0.00184411		-		
LAFTR4EqOpp-0.7	0.0017796	0.137607	0.003069068	0.00160825	0.00176212	0.00573337	0.00765081	0.0145814	0.0001167922	0.00184411	0.00184411	0.00184411	0.00184411			-	
LAFTR4EqOpp-1.0	0.0017796	0.137607	0.003069068	0.00160825	0.00176212	0.00573337	0.00765081	0.0145814	0.0001167922	0.00184411	0.00184411	0.00184411	0.00184411				-

Table 33: DispEqOdds t-test results for Adult (race) dataset

	UnfairLR	UnfairLR-decay	ZhangDP	ZhangEqOdds	ZhangEqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0
UnfairLR																	
UnfairLR-decay	0.775357	-															
ZhangDP	0.341565	0.599678	-														
ZhangEqOdds	0.192387	0.610521	0.0354778	-													
ZhangEqOpp	0.712561	0.99498	0.13315	0.123073	-												
LAFTR4DP-0.2	0.0557349	0.090786	0.0557446	0.0145673	0.0146371	-											
LAFTR4DP-0.5	0.0348649	0.0428936	0.0405559	0.0113062	0.0159976	0.259956	-										
LAFTR4DP-0.7	0.00418862	0.00564629	0.00467805	0.00257605	0.00175767	0.098876	0.22926	-									
LAFTR4DP-1.0	0.0135409	0.0214422	0.012879	0.00371825	0.00467448	0.0283283	0.0130689	0.87404	-								
LAFTR4EqOdds-0.2	0.0182451	0.424394	0.0134277	0.00397468	0.00238569	0.568729	0.448484	0.0202516	0.0327802	-							
LAFTR4EqOdds-0.5	0.0182451	0.424394	0.0134277	0.00397468	0.00238569	0.568729	0.448484	0.0202516	0.0327802	0.00156597	-						
LAFTR4EqOdds-0.7	0.0182451	0.424394	0.0134277	0.00397468	0.00238569	0.568729	0.448484	0.0202516	0.0327802	0.00156597	0.00156597	-					
LAFTR4EqOdds-1.0	0.0182451	0.424394	0.0134277	0.00397468	0.00238569	0.568729	0.448484	0.0202516	0.0327802	0.00156597	0.00156597	0.00156597	-				
LAFTR4EqOpp-0.2	0.00449984	0.00701866	0.0040959	0.002143	0.00140124	0.00562735	0.0290028	0.02912239	0.15693	0.0290028	0.00156597	0.00156597	0.00156597	-			
LAFTR4EqOpp-0.5	0.00449984	0.00701866	0.0040959	0.002143	0.00140124	0.00562735	0.0290028	0.02912239	0.15693	0.0290028	0.00156597	0.00156597	0.00156597		-		
LAFTR4EqOpp-0.7	0.00449984	0.00701866	0.0040959	0.002143	0.00140124	0.00562735	0.0290028	0.02912239	0.15693	0.0290028	0.00156597	0.00156597	0.00156597			-	
LAFTR4EqOpp-1.0	0.00449984	0.00701866	0.0040959	0.002143	0.00140124	0.00562735	0.0290028	0.02912239	0.15693	0.0290028	0.00156597	0.00156597	0.00156597				-

Table 34: DispEqOpp t-test results for Adult (race) dataset

	UnfairLR	UnfairLR-decay	ZhangDP	ZhangEqOdds	ZhangEqOpp	LAFTRdDP-0.2	LAFTRdDP-0.5	LAFTRdDP-0.7	LAFTRdDP-1.0	LAFTRdEqOdds-0.2	LAFTRdEqOdds-0.5	LAFTRdEqOdds-0.7	LAFTRdEqOdds-1.0	LAFTRdEqOpp-0.2	LAFTRdEqOpp-0.5	LAFTRdEqOpp-0.7	LAFTRdEqOpp-1.0
UnfairLR	0.878457	-															
UnfairLR-decay	0.123108	0.650066	-														
ZhangDP	0.135134	0.454641	0.0140638	-													
ZhangEqOdds	0.878879	0.87334	0.0945864	0.0504974	-												
ZhangEqOpp	0.0410475	0.101659	0.059021	0.013581	0.0138135	-											
LAFTRdDP-0.2	0.0336257	0.060247	0.0493465	0.0136916	0.0174824	0.246301	-										
LAFTRdDP-0.5	0.00264097	0.00678877	0.00342322	0.00180084	0.00129913	0.0574276	0.209198	-									
LAFTRdDP-0.7	0.00808679	0.0198759	0.00953636	0.0027693	0.00320676	0.0196869	0.00942733	0.57407	-								
LAFTRdEqOdds-0.2	0.0162631	0.056307	0.016925	0.00468283	0.00357319	0.43856	0.543755	0.0211621	0.0175665	-							
LAFTRdEqOdds-0.5	0.0162631	0.056307	0.016925	0.00468283	0.00357319	0.43856	0.543755	0.0211621	0.0175665	-							
LAFTRdEqOdds-0.7	0.0162631	0.056307	0.016925	0.00468283	0.00357319	0.43856	0.543755	0.0211621	0.0175665	-							
LAFTRdEqOdds-1.0	0.0162631	0.056307	0.016925	0.00468283	0.00357319	0.43856	0.543755	0.0211621	0.0175665			-					
LAFTRdEqOpp-0.2	0.00240618	0.0065554	0.00257753	0.00116133	0.0008287229	0.00296851	0.00956844	0.01149868	0.0645493	0.000342034	0.000342034	0.000342034	0.000342034	-			
LAFTRdEqOpp-0.5	0.00240618	0.0065554	0.00257753	0.00116133	0.0008287229	0.00296851	0.00956844	0.01149868	0.0645493	0.000342034	0.000342034	0.000342034	0.000342034		-		
LAFTRdEqOpp-0.7	0.00240618	0.0065554	0.00257753	0.00116133	0.0008287229	0.00296851	0.00956844	0.01149868	0.0645493	0.000342034	0.000342034	0.000342034	0.000342034			-	
LAFTRdEqOpp-1.0	0.00240618	0.0065554	0.00257753	0.00116133	0.0008287229	0.00296851	0.00956844	0.01149868	0.0645493	0.000342034	0.000342034	0.000342034	0.000342034				-

Table 35: FU-score (DemDisp) t-test results for Adult (race) dataset

	UnfairLR	UnfairLR-decay	ZhangADP	ZhangAEqOdds	ZhangAEqOpp	LAFTRdDP-0.2	LAFTRdDP-0.5	LAFTRdDP-0.7	LAFTRdDP-1.0	LAFTRdEqOdds-0.2	LAFTRdEqOdds-0.5	LAFTRdEqOdds-0.7	LAFTRdEqOdds-1.0	LAFTRdEqOpp-0.2	LAFTRdEqOpp-0.5	LAFTRdEqOpp-0.7	LAFTRdEqOpp-1.0
UnfairLR	-																
UnfairLR-decay	0.00335804																
ZhangADP	0.0374543	0.00512602	-														
ZhangAEqOdds	0.102925	0.00314429	0.000341367	-													
ZhangAEqOpp	0.141889	0.00389014	0.0918333	0.0128526	-												
LAFTRdDP-0.2	0.0147193	0.0155266	0.056378	0.0118773	0.0146844	-											
LAFTRdDP-0.5	0.059097	0.0338926	0.11753	0.0513604	0.0711086	0.635651	-										
LAFTRdDP-0.7	0.00231668	0.0462542	0.00337426	0.00176656	0.00308495	0.0647818	0.196936	-									
LAFTRdDP-1.0	0.00358306	0.0811194	0.00712256	0.000319802	0.00374831	0.017464	0.02219762	0.18073	-								
LAFTRdEqOdds-0.2	0.0246206	0.0277613	0.056989	0.0162519	0.0261084	0.587916	0.87373	0.040481	0.00591781	-							
LAFTRdEqOdds-0.5	0.0246206	0.0277613	0.056989	0.0162519	0.0261084	0.587916	0.87373	0.040481	0.00591781	-	-						
LAFTRdEqOdds-0.7	0.0246206	0.0277613	0.056989	0.0162519	0.0261084	0.587916	0.87373	0.040481	0.00591781	-	-	-					
LAFTRdEqOdds-1.0	0.0246206	0.0277613	0.056989	0.0162519	0.0261084	0.587916	0.87373	0.040481	0.00591781	-	-	-	-				
LAFTRdEqOpp-0.2	0.00147536	0.139928	0.00264229	0.00137637	0.0015404047	0.00606233	0.00792742	0.0131316	0.000234248	0.00206468	0.00206468	0.00206468	0.00206468	-			
LAFTRdEqOpp-0.5	0.00147536	0.139928	0.00264229	0.00137637	0.0015404047	0.00606233	0.00792742	0.0131316	0.000234248	0.00206468	0.00206468	0.00206468	0.00206468	-	-		
LAFTRdEqOpp-0.7	0.00147536	0.139928	0.00264229	0.00137637	0.0015404047	0.00606233	0.00792742	0.0131316	0.000234248	0.00206468	0.00206468	0.00206468	0.00206468	-	-	-	
LAFTRdEqOpp-1.0	0.00147536	0.139928	0.00264229	0.00137637	0.0015404047	0.00606233	0.00792742	0.0131316	0.000234248	0.00206468	0.00206468	0.00206468	0.00206468	-	-	-	-

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Table 36: FU-score (DispEqOdds) for Adult (race) dataset

	UnfairLR	UnfairLR-decay	ZhangDP	ZhangEqOdds	ZhangEqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0
UnfairLR	0.083519																
UnfairLR-decay	0.381145	0.126547															
ZhangDP	0.177998	0.526012	0.033964														
ZhangEqOdds	0.690343	0.285154	0.155302	0.145641													
ZhangEqOpp	0.0515059	0.0411798	0.023091	0.014468	0.0139761												
LAFTR4DP-0.2	0.0323891	0.0200106	0.039045	0.0113172	0.0171268	-											
LAFTR4DP-0.5	0.00446431	0.00291974	0.00562798	0.00315628	0.00248997	0.270817	0.278817										
LAFTR4DP-0.7	0.0146327	0.0129261	0.0144589	0.0045504	0.00588847	0.0302538	0.0174316	0.889567									
LAFTR4DP-1.0	0.0173202	0.0187407	0.013764	0.00428837	0.00263056	0.634769	0.414435	0.0248836	0.0365842								
LAFTR4EqOdds-0.2	0.0173202	0.0187407	0.013764	0.00428837	0.00263056	0.634769	0.414435	0.0248836	0.0365842	-							
LAFTR4EqOdds-0.5	0.0173202	0.0187407	0.013764	0.00428837	0.00263056	0.634769	0.414435	0.0248836	0.0365842		-						
LAFTR4EqOdds-0.7	0.0173202	0.0187407	0.013764	0.00428837	0.00263056	0.634769	0.414435	0.0248836	0.0365842			-					
LAFTR4EqOdds-1.0	0.0173202	0.0187407	0.013764	0.00428837	0.00263056	0.634769	0.414435	0.0248836	0.0365842				-				
LAFTR4EqOpp-0.2	0.00528278	0.0048111	0.0052894	0.00273459	0.000194124	0.00628247	0.0332915	0.0559658	0.174041	0.00239446	0.00239446	0.00239446	0.00239446	-			
LAFTR4EqOpp-0.5	0.00528278	0.0048111	0.0052894	0.00273459	0.000194124	0.00628247	0.0332915	0.0559658	0.174041	0.00239446	0.00239446	0.00239446	0.00239446		-		
LAFTR4EqOpp-0.7	0.00528278	0.0048111	0.0052894	0.00273459	0.000194124	0.00628247	0.0332915	0.0559658	0.174041	0.00239446	0.00239446	0.00239446	0.00239446			-	
LAFTR4EqOpp-1.0	0.00528278	0.0048111	0.0052894	0.00273459	0.000194124	0.00628247	0.0332915	0.0559658	0.174041	0.00239446	0.00239446	0.00239446	0.00239446				-

Table 37: FU-score (DispEqOpp) for Adult (race) dataset

	UnfairLR	UnfairLR-decay	ZhangDP	ZhangEqOdds	ZhangEqOpp	LAFTR4DP-0.2	LAFTR4DP-0.5	LAFTR4DP-0.7	LAFTR4DP-1.0	LAFTR4EqOdds-0.2	LAFTR4EqOdds-0.5	LAFTR4EqOdds-0.7	LAFTR4EqOdds-1.0	LAFTR4EqOpp-0.2	LAFTR4EqOpp-0.5	LAFTR4EqOpp-0.7	LAFTR4EqOpp-1.0
UnfairLR	0.746211																
UnfairLR-decay	0.137818	0.466233	-														
ZhangDP	0.128375	0.653783	0.0138287	-													
ZhangEqOdds	0.879091	0.874487	0.091011	0.061702	-												
ZhangEqOpp	0.0366902	0.076994	0.015793	0.0129038	0.0125025	-											
LAFTR4DP-0.2	0.0330692	0.0458074	0.0507705	0.0153584	0.0198209	0.256898	-										
LAFTR4DP-0.5	0.0634916	0.0056074	0.00532102	0.00287567	0.00229851	0.058609	0.205732	-									
LAFTR4DP-0.7	0.00898292	0.0167136	0.0117269	0.0038329	0.00440837	0.0234536	0.00748779	0.68354	-								
LAFTR4EqOdds-0.2	0.0154039	0.0432207	0.0173637	0.005265546	0.0038939	0.128227	0.522791	0.026403	0.0232134	-							
LAFTR4EqOdds-0.5	0.0154039	0.0432207	0.0173637	0.005265546	0.0038939	0.128227	0.522791	0.026403	0.0232134		-						
LAFTR4EqOdds-0.7	0.0154039	0.0432207	0.0173637	0.005265546	0.0038939	0.128227	0.522791	0.026403	0.0232134			-					
LAFTR4EqOdds-1.0	0.0154039	0.0432207	0.0173637	0.005265546	0.0038939	0.128227	0.522791	0.026403	0.0232134				-				
LAFTR4EqOpp-0.2	0.0031026	0.000613727	0.000387184	0.00187187	0.00144118	0.004132326	0.00934543	0.0175768	0.069899	0.00106586	0.00106586	0.00106586	0.00106586	-			
LAFTR4EqOpp-0.5	0.0031026	0.000613727	0.000387184	0.00187187	0.00144118	0.004132326	0.00934543	0.0175768	0.069899	0.00106586	0.00106586	0.00106586	0.00106586		-		
LAFTR4EqOpp-0.7	0.0031026	0.000613727	0.000387184	0.00187187	0.00144118	0.004132326	0.00934543	0.0175768	0.069899	0.00106586	0.00106586	0.00106586	0.00106586			-	
LAFTR4EqOpp-1.0	0.0031026	0.000613727	0.000387184	0.00187187	0.00144118	0.004132326	0.00934543	0.0175768	0.069899	0.00106586	0.00106586	0.00106586	0.00106586				-