

Table 4. Per-group results (accuracy, recall, precision and approval-rate disaggregated by groups A and B) for the offline pipeline.

Variant	A Acc. (†)	B Acc. (†)	A Rec. (†)	B Rec. (†)	A Prec. (†)	B Prec. (†)	A AppRate (†)	B AppRate (†)
rep = 0.5 lbl = 0.0 A support = 632 B support = 579								
none	0.935	0.967	0.954	0.830	0.942	0.976	0.630	0.147
reweight_auto	<u>0.932</u>	0.957	0.939	<u>0.870</u>	<u>0.951</u>	0.879	0.614	<u>0.171</u>
reweight_manual_A0.5_B1.5	0.921	0.960	<u>0.941</u>	0.800	0.932	<u>0.964</u>	<u>0.628</u>	0.143
mitigator_demographic_parity	0.894	0.611	0.847	0.910	0.979	0.296	0.538	0.530
mitigator_equalized_odds	0.929	<u>0.962</u>	0.939	0.850	0.946	0.924	0.617	0.159
rep = 0.5 lbl = 0.4 A support = 616 B support = 605								
none	<u>0.920</u>	0.954	0.948	0.568	0.941	0.636	<u>0.718</u>	0.055
reweight_auto	0.922	0.929	0.948	<u>0.676</u>	0.943	0.446	0.716	<u>0.093</u>
reweight_manual_A0.5_B1.5	0.906	0.954	0.938	0.595	0.930	<u>0.629</u>	0.719	0.058
mitigator_demographic_parity	0.846	0.383	0.800	0.838	0.980	0.078	0.581	0.658
mitigator_equalized_odds	0.909	0.944	0.918	0.568	<u>0.953</u>	0.538	0.687	0.064
rep = 0.5 lbl = 0.5 A support = 644 B support = 576								
none	0.932	0.955	0.965	<u>0.677</u>	0.940	0.568	0.730	<u>0.064</u>
reweight_auto	0.904	<u>0.960</u>	0.891	0.581	0.971	<u>0.643</u>	0.652	0.049
reweight_manual_A0.5_B1.5	0.915	0.972	0.921	0.645	0.957	0.800	0.685	0.043
mitigator_demographic_parity	0.846	0.451	0.808	0.903	<u>0.971</u>	0.082	0.592	0.592
mitigator_equalized_odds	<u>0.925</u>	<u>0.960</u>	<u>0.932</u>	<u>0.677</u>	0.962	0.618	<u>0.689</u>	0.059
rep = 0.5 lbl = 0.6 A support = 618 B support = 597								
none	0.896	<u>0.940</u>	0.928	0.267	0.928	<u>0.364</u>	<u>0.718</u>	0.037
reweight_auto	0.906	0.925	0.948	<u>0.567</u>	0.923	0.347	0.738	<u>0.082</u>
reweight_manual_A0.5_B1.5	0.890	0.951	0.917	0.300	0.929	0.529	0.709	0.028
mitigator_demographic_parity	0.366	0.787	0.119	0.767	0.981	0.161	0.087	0.240
mitigator_equalized_odds	0.906	0.938	<u>0.935</u>	0.300	<u>0.935</u>	0.360	<u>0.718</u>	0.042
rep = 0.6 lbl = 0.0 A support = 771 B support = 455								
none	0.917	0.949	0.925	0.816	<u>0.933</u>	0.873	0.585	0.156
reweight_auto	0.913	0.941	0.919	<u>0.842</u>	0.933	0.810	0.581	<u>0.174</u>
reweight_manual_A0.5_B1.5	0.926	<u>0.947</u>	0.952	0.829	0.925	<u>0.851</u>	0.607	0.163
mitigator_demographic_parity	0.913	0.596	0.914	0.921	0.937	0.282	0.576	0.545
mitigator_equalized_odds	<u>0.925</u>	<u>0.947</u>	<u>0.947</u>	<u>0.842</u>	0.927	0.842	<u>0.603</u>	0.167
rep = 0.6 lbl = 0.4 A support = 771 B support = 463								
none	0.904	<u>0.937</u>	0.905	0.351	0.957	<u>0.722</u>	0.668	0.039
reweight_auto	0.925	0.922	0.945	0.541	0.948	0.513	0.704	<u>0.084</u>
reweight_manual_A0.5_B1.5	0.909	0.942	0.919	0.432	<u>0.951</u>	0.727	0.684	0.048
mitigator_demographic_parity	0.917	0.335	<u>0.949</u>	0.946	0.935	0.103	<u>0.717</u>	0.737
mitigator_equalized_odds	0.925	0.933	0.960	<u>0.595</u>	0.936	0.579	0.725	0.082
rep = 0.6 lbl = 0.5 A support = 776 B support = 461								
none	<u>0.930</u>	<u>0.954</u>	0.913	<u>0.484</u>	<u>0.984</u>	<u>0.750</u>	0.635	0.043
reweight_auto	0.929	0.948	0.917	<u>0.484</u>	0.978	0.652	0.642	0.050
reweight_manual_A0.5_B1.5	0.912	0.957	0.885	0.419	0.985	0.867	0.615	0.033
mitigator_demographic_parity	<u>0.930</u>	0.282	0.951	0.871	0.947	0.076	0.687	0.768
mitigator_equalized_odds	0.936	0.946	<u>0.940</u>	<u>0.484</u>	0.965	0.625	<u>0.666</u>	<u>0.052</u>
rep = 0.6 lbl = 0.6 A support = 763 B support = 461								
none	<u>0.933</u>	0.946	0.970	<u>0.450</u>	<u>0.941</u>	0.391	0.754	0.050
reweight_auto	0.928	0.920	0.970	<u>0.450</u>	0.934	0.257	0.759	<u>0.076</u>
reweight_manual_A0.5_B1.5	0.924	0.946	0.980	<u>0.450</u>	0.921	0.391	0.779	0.050
mitigator_demographic_parity	0.932	0.258	<u>0.973</u>	0.900	0.936	0.050	<u>0.760</u>	0.777
mitigator_equalized_odds	0.934	0.946	0.971	<u>0.450</u>	0.941	0.391	0.755	0.050
rep = 0.7 lbl = 0.0 A support = 881 B support = 338								
none	0.933	0.938	0.950	0.806	0.938	0.847	<u>0.604</u>	0.175
reweight_auto	0.925	0.947	0.930	0.806	0.944	0.893	0.587	0.166
reweight_manual_A0.5_B1.5	0.927	0.944	0.937	0.806	<u>0.941</u>	<u>0.877</u>	0.594	0.169
mitigator_demographic_parity	<u>0.930</u>	0.571	0.943	0.935	0.939	0.291	0.598	0.589
mitigator_equalized_odds	<u>0.930</u>	0.947	<u>0.949</u>	<u>0.839</u>	0.934	0.867	0.605	<u>0.178</u>
rep = 0.7 lbl = 0.4 A support = 890 B support = 349								
none	0.939	<u>0.943</u>	0.965	0.633	0.949	<u>0.679</u>	0.709	0.080
reweight_auto	0.939	0.926	0.955	<u>0.667</u>	0.958	0.556	0.696	<u>0.103</u>
reweight_manual_A0.5_B1.5	0.936	0.940	<u>0.960</u>	0.633	0.949	0.655	<u>0.706</u>	0.083
mitigator_demographic_parity	0.936	0.384	0.958	0.867	0.950	0.110	0.703	0.679
mitigator_equalized_odds	0.938	0.946	0.953	0.633	<u>0.958</u>	0.704	0.694	0.077
rep = 0.7 lbl = 0.5 A support = 887 B support = 360								
none	0.939	0.908	0.977	<u>0.588</u>	0.942	0.278	0.754	<u>0.100</u>
reweight_auto	0.933	<u>0.928</u>	0.946	0.471	0.962	0.320	0.715	0.069
reweight_manual_A0.5_B1.5	0.928	0.947	0.938	0.529	<u>0.962</u>	0.450	0.709	0.056
mitigator_demographic_parity	0.937	0.192	<u>0.974</u>	0.941	0.942	0.052	<u>0.752</u>	0.850
mitigator_equalized_odds	0.939	<u>0.928</u>	0.961	<u>0.588</u>	0.955	<u>0.345</u>	0.732	0.081
rep = 0.7 lbl = 0.6 A support = 908 B support = 344								
none	0.909	<u>0.936</u>	<u>0.953</u>	0.533	0.923	<u>0.348</u>	<u>0.744</u>	0.067
reweight_auto	<u>0.912</u>	0.904	0.963	<u>0.600</u>	0.918	0.250	0.757	<u>0.105</u>
reweight_manual_A0.5_B1.5	0.907	0.956	0.939	0.467	0.933	0.500	0.726	0.041
mitigator_demographic_parity	0.924	0.363	<u>0.953</u>	0.667	0.943	0.045	0.729	0.651
mitigator_equalized_odds	0.910	<u>0.936</u>	0.940	0.533	<u>0.935</u>	<u>0.348</u>	0.726	0.067
rep = 0.8 lbl = 0.0 A support = 1030 B support = 216								
none	0.911	0.944	<u>0.926</u>	<u>0.818</u>	0.923	0.900	<u>0.589</u>	0.185
reweight_auto	<u>0.920</u>	0.940	0.924	<u>0.818</u>	0.939	0.878	0.578	<u>0.190</u>
reweight_manual_A0.5_B1.5	0.914	0.940	0.922	0.795	0.930	0.897	0.583	0.181
mitigator_demographic_parity	0.925	0.736	0.940	0.909	<u>0.933</u>	0.430	0.592	0.431
mitigator_equalized_odds	0.916	0.944	0.924	<u>0.818</u>	0.932	0.900	0.583	0.185
rep = 0.8 lbl = 0.4 A support = 1017 B support = 234								
none	0.942	<u>0.936</u>	0.946	0.533	0.971	0.500	0.687	0.068
reweight_auto	0.940	0.919	0.946	0.600	0.969	0.499	0.689	0.094
reweight_manual_A0.5_B1.5	<u>0.947</u>	0.944	0.955	0.467	<u>0.969</u>	0.583	0.696	0.051
mitigator_demographic_parity	0.946	0.333	0.965	0.800	0.959	0.073	0.711	0.705
mitigator_equalized_odds	0.952	0.932	0.965	<u>0.733</u>	0.967	0.478	<u>0.705</u>	<u>0.098</u>
rep = 0.8 lbl = 0.5 A support = 1007 B support = 234								
none	0.948	0.923	0.972	0.222	0.956	0.154	0.725	0.056
reweight_auto	0.929	<u>0.932</u>	0.940	0.222	0.960	0.182	0.698	0.047
reweight_manual_A0.5_B1.5	0.935	0.953	0.951	0.222	<u>0.958</u>	0.333	0.708	0.026
mitigator_demographic_parity	0.939	0.350	0.965	0.889	0.951	0.050	<u>0.724</u>	0.679
mitigator_equalized_odds	<u>0.946</u>	0.923	<u>0.968</u>	<u>0.444</u>	0.957	<u>0.235</u>	0.721	<u>0.073</u>
rep = 0.8 lbl = 0.6 A support = 1016 B support = 222								
none	0.932	<u>0.896</u>	<u>0.972</u>	0.286	0.938	<u>0.235</u>	<u>0.756</u>	0.077
reweight_auto	0.929	0.815	0.989	<u>0.571</u>	0.920	0.186	0.784	<u>0.194</u>
reweight_manual_A0.5_B1.5	<u>0.930</u>	0.910	0.962	0.357	0.943	0.312	0.744	0.072
mitigator_demographic_parity	0.927	0.374	0.966	0.857	0.936	0.081	0.753	0.671
mitigator_equalized_odds	0.925	0.874	0.961	0.429	<u>0.938</u>	0.231	0.747	0.117