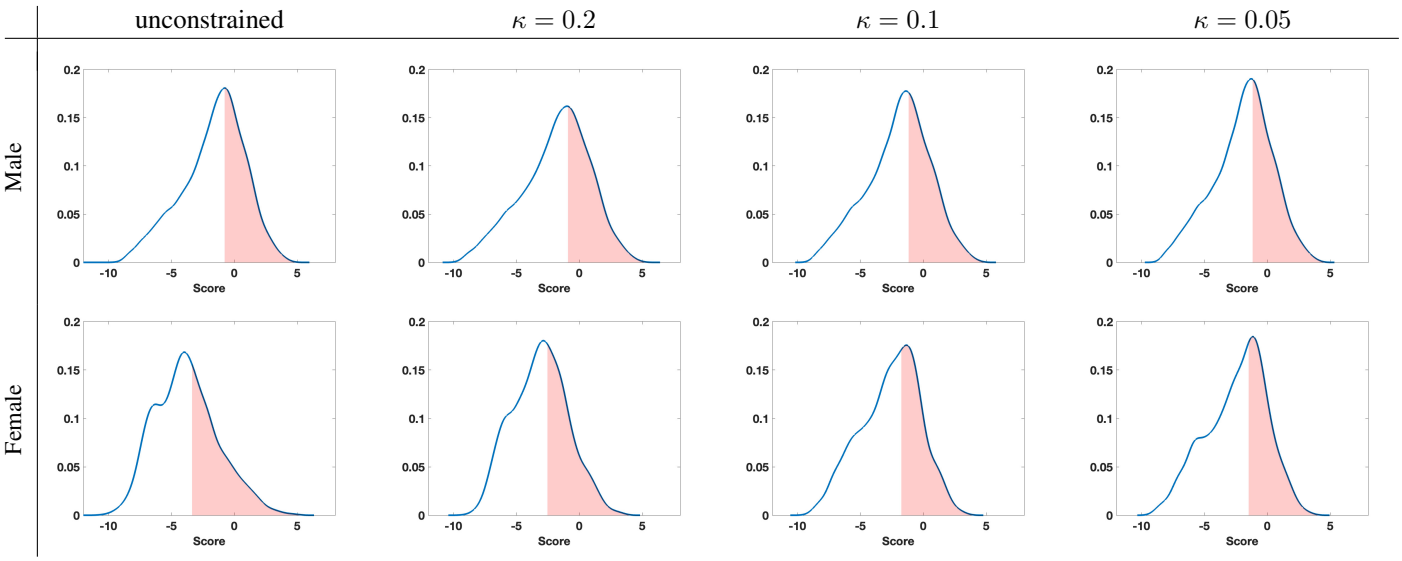

Figure 11. Distribution of score for male and female about a9a dataset by optimizing the classification accuracy subject to partial demographic parity. The interval $\mathcal{I}$ is $[0\%, 40\%]$. The red area in the graph represents the interval $\mathcal{I}$.

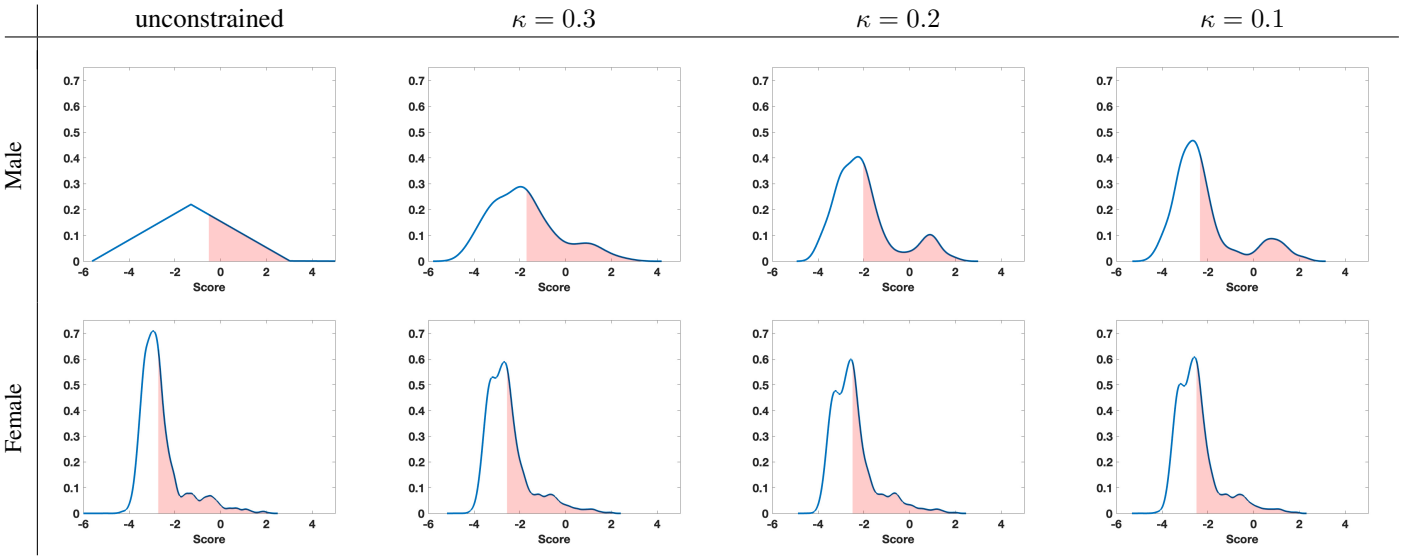

Figure 12. Distribution of score for male and female about bank dataset by optimizing the classification accuracy subject to partial demographic parity. The interval $\mathcal{I}$ is $[0\%, 40\%]$. The red area in the graph represents the interval $\mathcal{I}$.

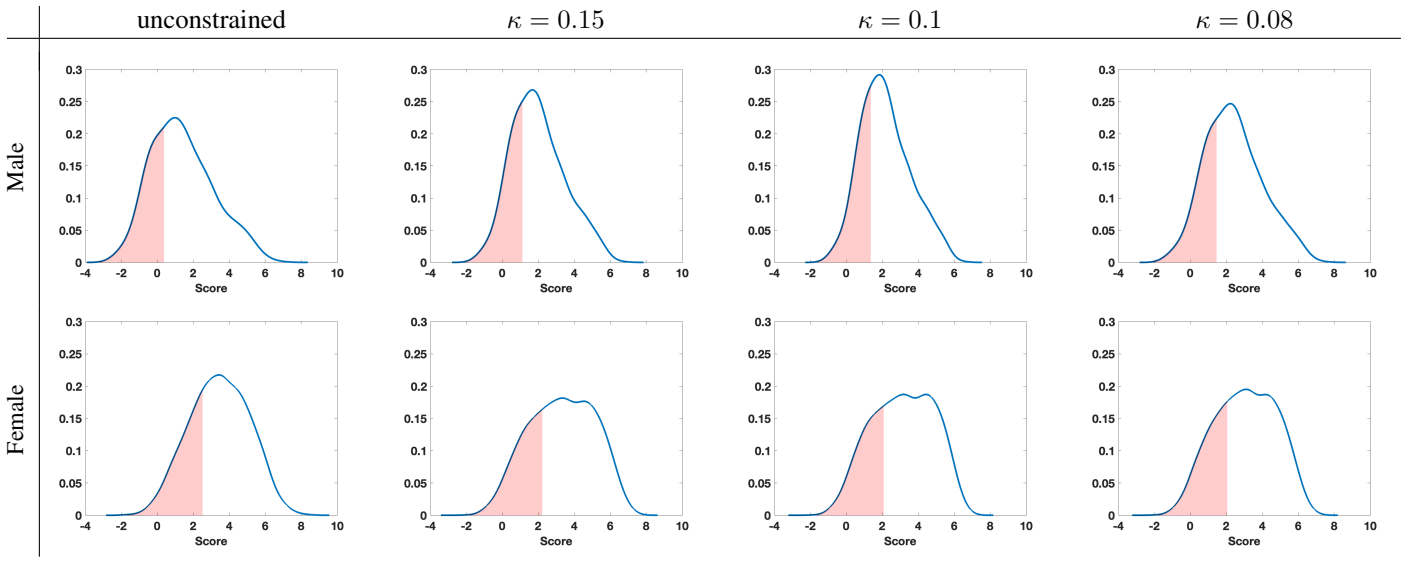

Figure 13. Distribution of score for male and female about law school dataset by optimizing the classification accuracy subject to partial demographic parity. The interval $\mathcal{I}$ is $[70\%, 100\%]$. The red area in the graph represents the interval $\mathcal{I}$.

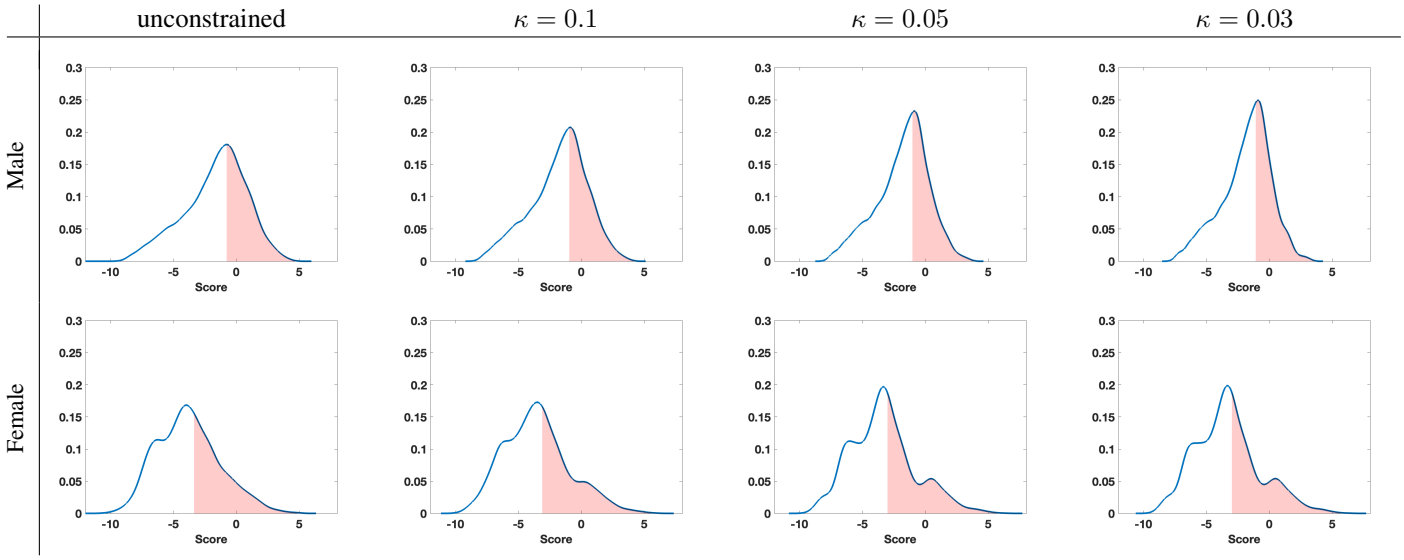

Figure 14. Distribution of score for male and female about a9a dataset by optimizing the classification accuracy subject to weak partial demographic parity. The interval $\mathcal{I}$ is $[0\%, 40\%]$. The red area in the graph represents the interval $\mathcal{I}$.

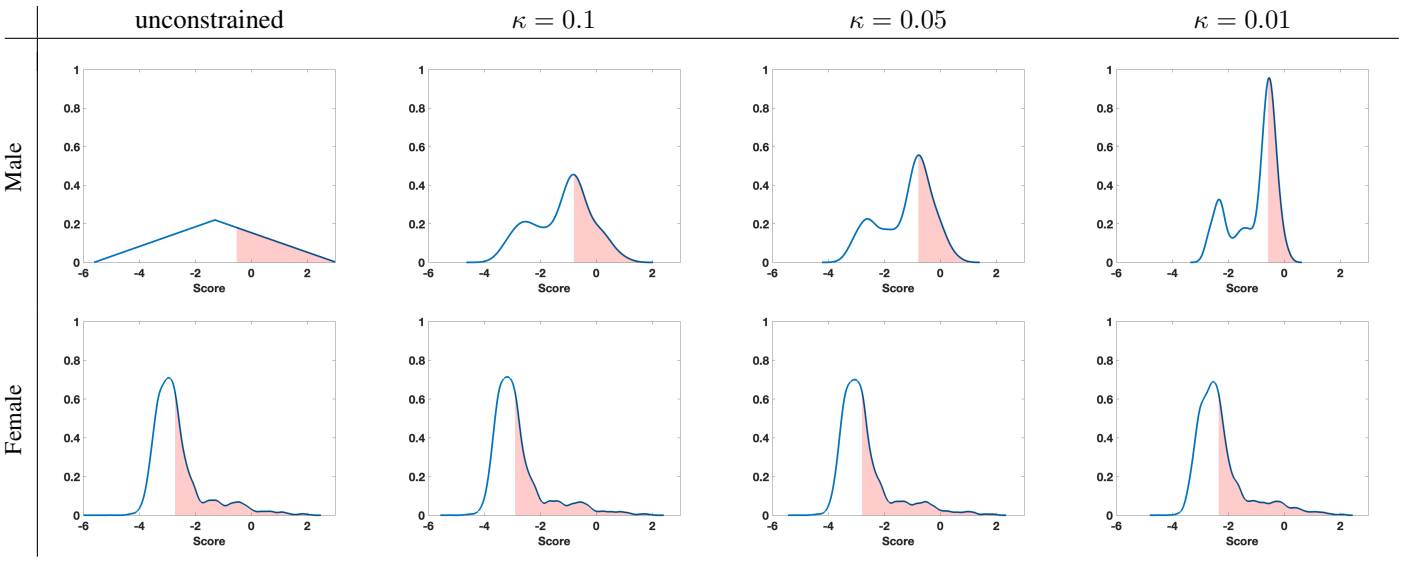

Figure 15. Distribution of score for male and female about bank dataset by optimizing the classification accuracy subject to weak partial demographic parity. The interval $\mathcal{I}$ is $[0\%, 40\%]$. The red area in the graph represents the interval $\mathcal{I}$.

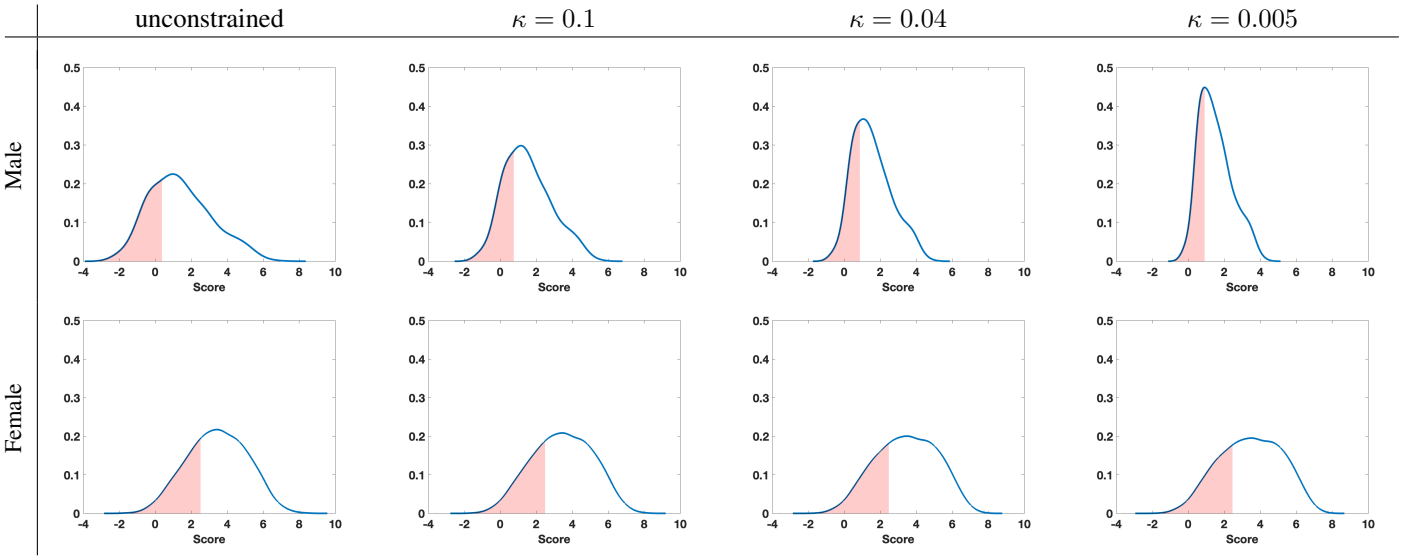

Figure 16. Distribution of score for male and female about law school dataset by optimizing the classification accuracy subject to weak partial demographic parity. The interval $\mathcal{I}$ is $[70\%, 100\%]$. The red area in the graph represents the interval $\mathcal{I}$.