

Results for the KNN algorithm

| h | Male | Female | Group Unfairness | Individual Unfairness |
|----------|-------------|---------------|-------------------------|------------------------------|
| Initial | 64.2712 | 64.0210 | 0.0157 | 0.0722 |
| 1 | 63.0181 | 62.2943 | 0.1310 | 0.0658 |
| 2 | 63.0214 | 62.3097 | 0.1266 | 0.0659 |
| 3 | 63.0200 | 62.3669 | 0.1066 | 0.0658 |
| 4 | 63.0210 | 62.3367 | 0.1171 | 0.0660 |
| 5 | 63.0239 | 62.2815 | 0.1378 | 0.0658 |

Table 1: Results for the KNN algorithm with gender-based groups.

| h | Children | Teenager | Adult | Elder | Group Unfairness | Individual Unfairness |
|----------|-----------------|-----------------|--------------|--------------|-------------------------|------------------------------|
| Initial | 23.4828 | 48.7850 | 65.6288 | 44.1351 | 225.6457 | 0.0722 |
| 1 | 23.3507 | 47.6696 | 64.2210 | 43.3067 | 211.9012 | 0.0661 |
| 2 | 23.3705 | 47.7880 | 64.2105 | 43.2619 | 211.8010 | 0.0660 |
| 3 | 23.3742 | 47.7414 | 64.2053 | 43.2347 | 211.6573 | 0.0658 |
| 4 | 23.3672 | 47.7481 | 64.2147 | 43.3296 | 211.7694 | 0.0658 |

Table 2: Results for the KNN algorithm with age-based groups.

| h | CA | IL | MN | NY | TX | Rest | Group Unfairness | Individual Unfairness |
|----------|-----------|-----------|-----------|-----------|-----------|-------------|-------------------------|------------------------------|
| Initial | 67.4483 | 59.8881 | 61.5345 | 87.1139 | 59.5295 | 62.3443 | 93.3078 | 0.0722 |
| 1 | 66.3417 | 58.2746 | 60.2747 | 83.8354 | 58.4216 | 61.0869 | 80.3665 | 0.0661 |
| 2 | 66.2664 | 58.3588 | 60.2432 | 83.8026 | 58.4983 | 61.0657 | 79.8513 | 0.0659 |
| 3 | 66.3330 | 58.3252 | 60.2991 | 83.8637 | 58.4549 | 61.0935 | 80.3206 | 0.0661 |
| 4 | 66.2802 | 58.2624 | 60.2074 | 83.7685 | 58.4659 | 61.0701 | 79.9615 | 0.0655 |

Table 3: Results for the KNN algorithm with states-based groups.

| h | Blockbuster | Diversed | Niched | Group Unfairness | Individual Unfairness |
|----------|--------------------|-----------------|---------------|-------------------------|------------------------------|
| Initial | 20.6032 | 49.1364 | 122.6704 | 1848.7868 | 0.0722 |
| 1 | 20.2589 | 48.3598 | 119.6713 | 1750.8685 | 0.0660 |
| 2 | 20.2659 | 48.3409 | 119.6441 | 1749.8194 | 0.0660 |
| 3 | 20.2689 | 48.3376 | 119.6990 | 1751.8497 | 0.0660 |
| 4 | 20.2658 | 48.3502 | 119.6854 | 1751.2974 | 0.0659 |

Table 4: Results for the KNN algorithm with popularity-based groups.