Without looking at labels, out of all data points, 0.3 are -1 (minority group), 0.7 are 1, majority group.

svm: w, b

[-0.00466609, 1.44882, 0.16575]

0.06980808464353211

in train\_svm, about to call classify\_examples

1000

in classify\_examples\_svm

length(features)

1000

length(raw\_result)

1000

length(best\_indices)

519

non\_minority\_p\_num

360

minority\_p\_num

159

TSVM:

w, b after swapping

[0.254579, 2.25362, 0.441687]-0.027179349184990164

non\_minority\_p\_num

367

minority\_p\_num

145

TSVM-FAIR

w, b in while loop for one time

[0.0687654, 2.37432, 0.318702]0.09713227193685806

non\_minority\_p\_num

353

minority\_p\_num

159

Positive label (30% minority, 70% majority), other label (50% majority, 50% minority)

svm: w, b

[0.449701, 1.49383, 0.157151]

-0.04076590970373508

in train\_svm, about to call classify\_examples

1000

in classify\_examples\_svm

length(features)

1000

length(raw\_result)

1000

length(best\_indices)

498

non\_minority\_p\_num

295

minority\_p\_num

203

TSVM:

w, b after swapping

[0.514449, 2.51722, 0.396843]0.10127453333824848

non\_minority\_p\_num

287

minority\_p\_num

225

TSVM-fair1

w, b after swapping

[0.548661, 2.52193, 0.361608]0.11982020527779172

non\_minority\_p\_num

289

minority\_p\_num

223