

quintile

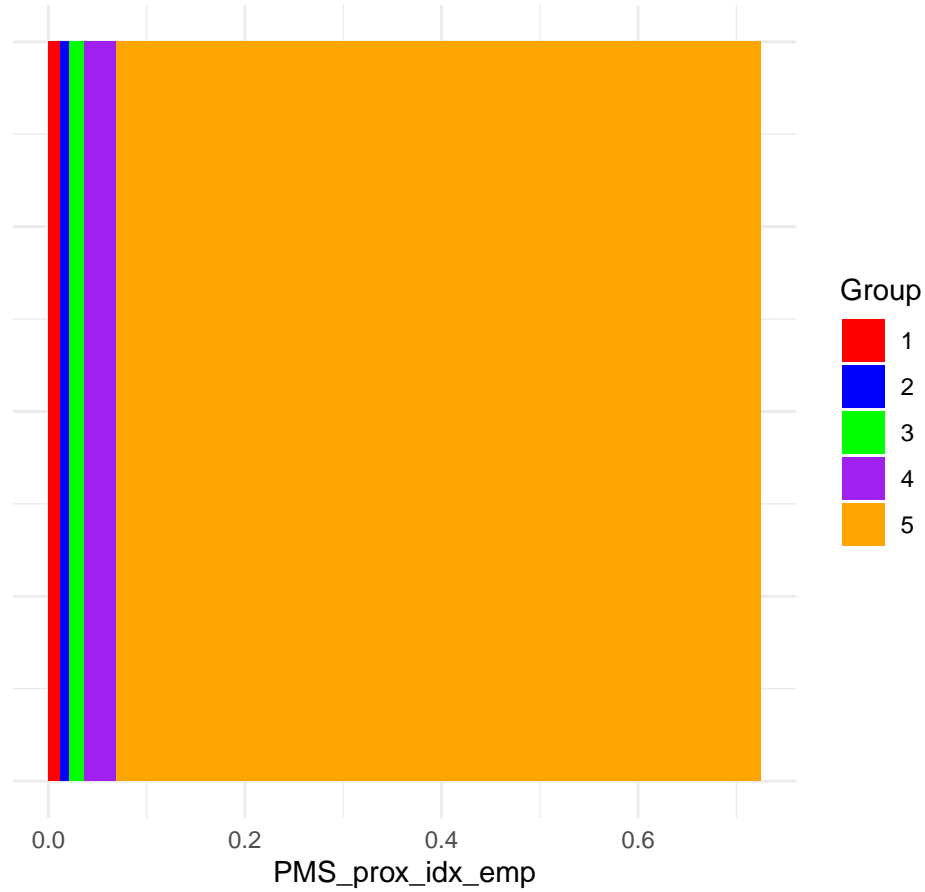
Avishek

2023-05-26

## Cluster by quintiles

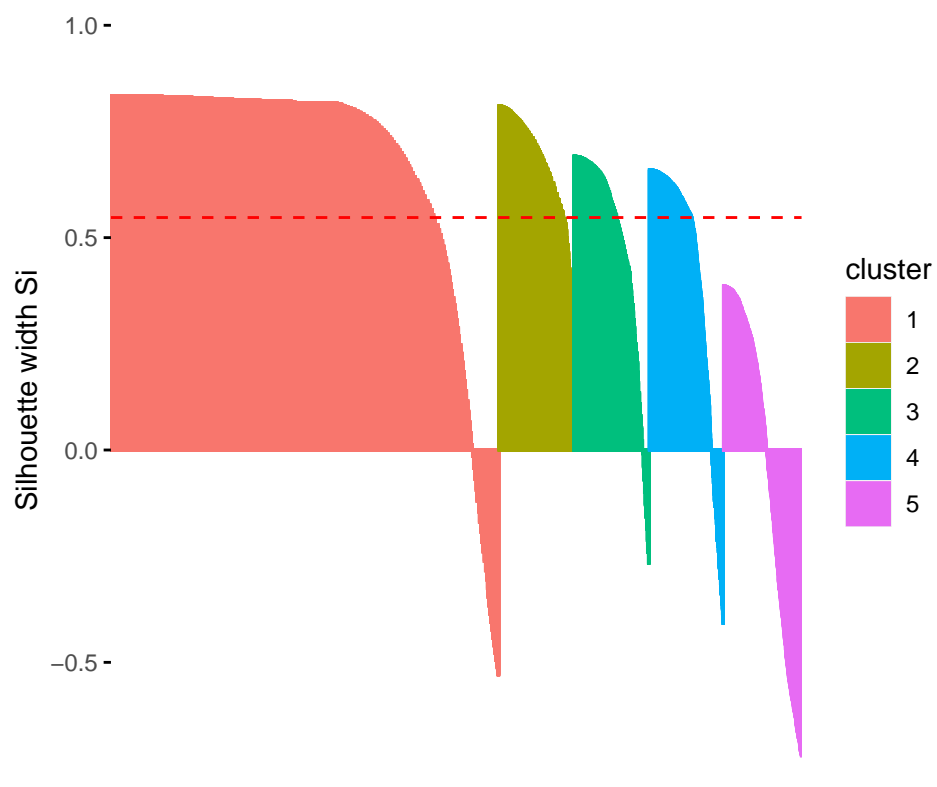
Employment

Cutoff Values by Quartile



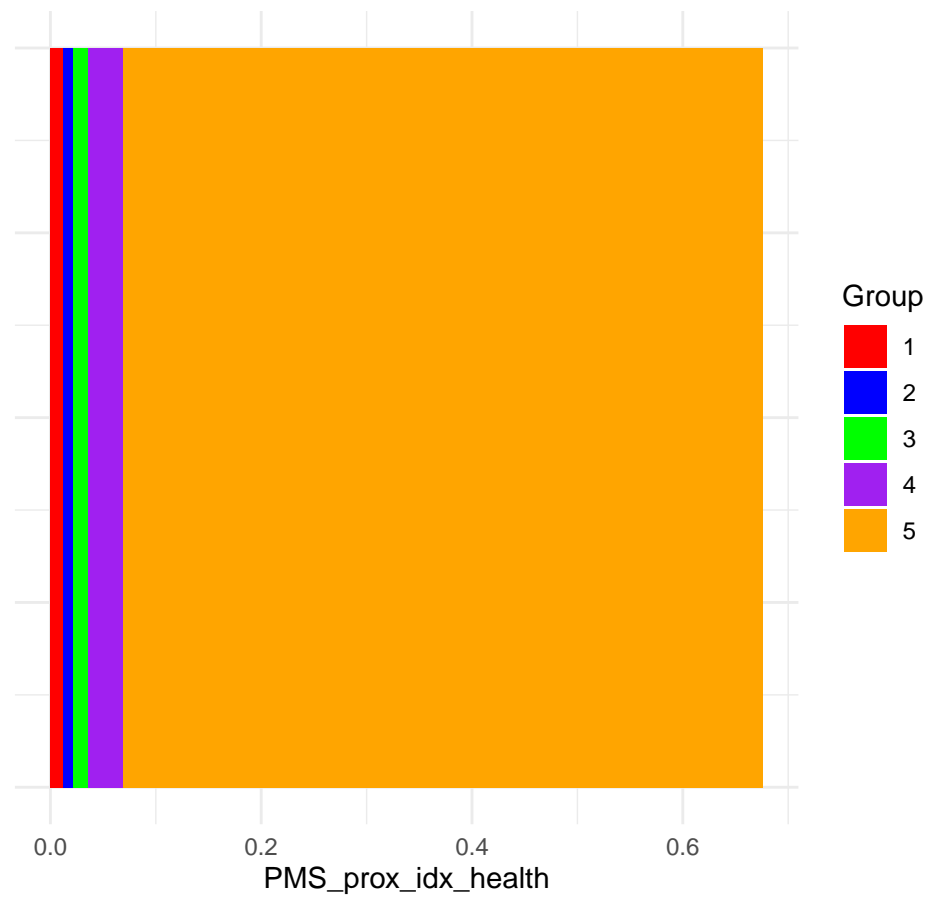
##	cluster	size	ave.sil.width
## 1	1	6589	0.68
## 2	2	1270	0.68
## 3	3	1282	0.48
## 4	4	1259	0.41
## 5	5	1328	-0.03

Clusters silhouette plot  
Average silhouette width: 0.55



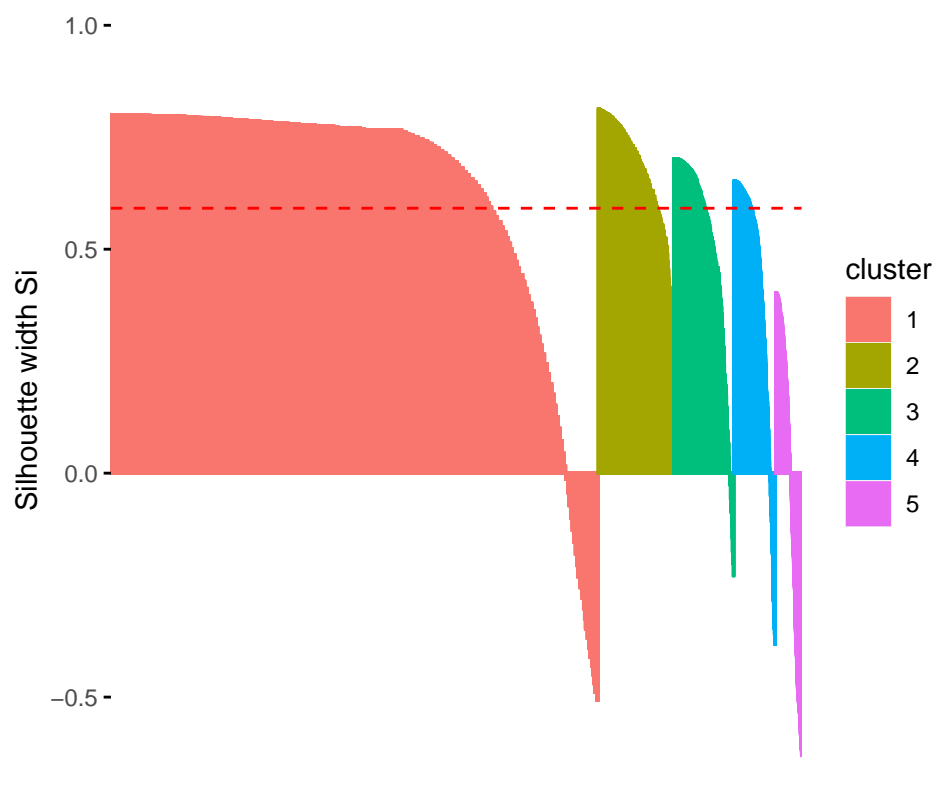
## Health

Cutoff Values by Quartile



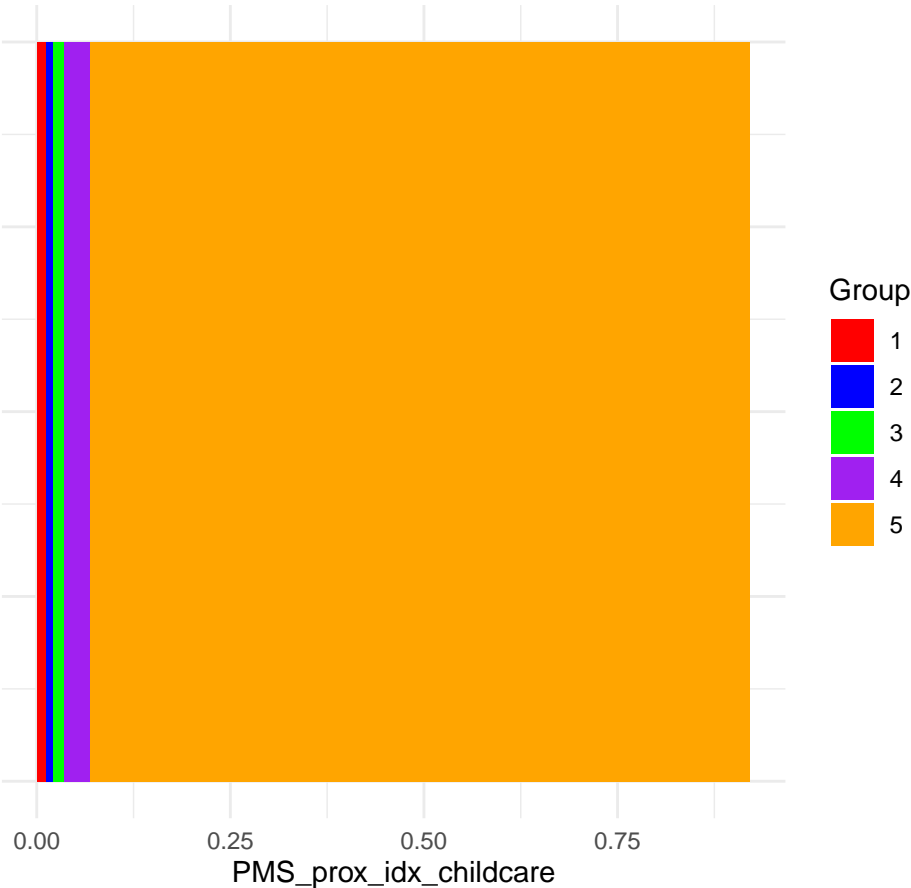
##	cluster	size	ave.sil.width
## 1	1	5995	0.63
## 2	2	932	0.68
## 3	3	739	0.50
## 4	4	512	0.41
## 5	5	320	0.01

Clusters silhouette plot  
Average silhouette width: 0.59



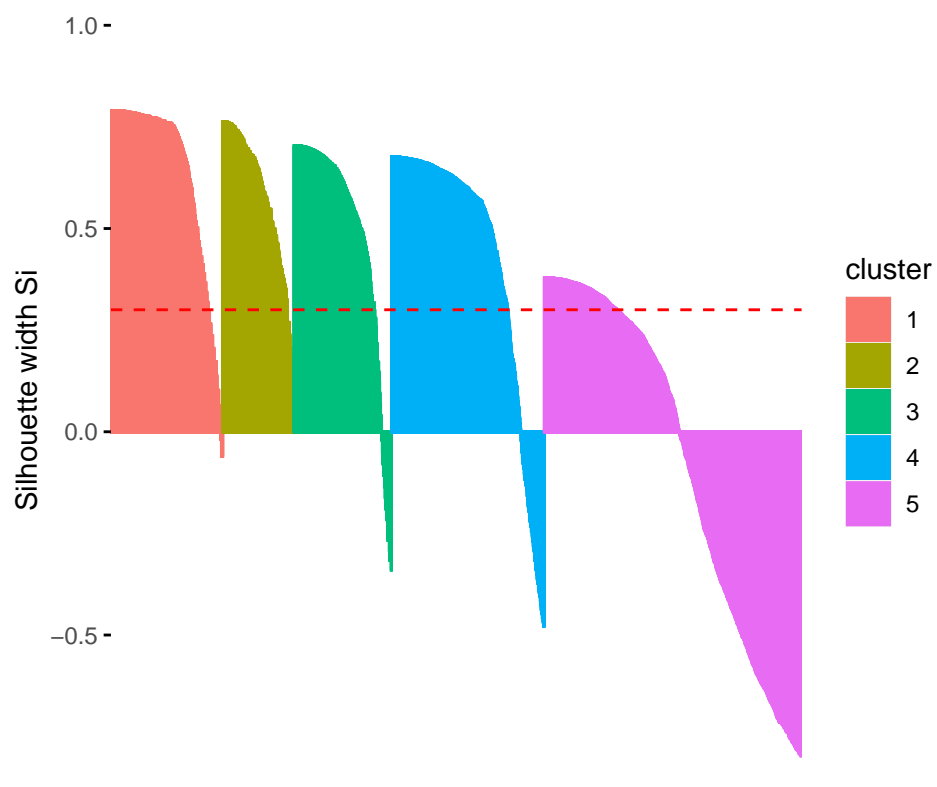
Childcare

Cutoff Values by Quartile



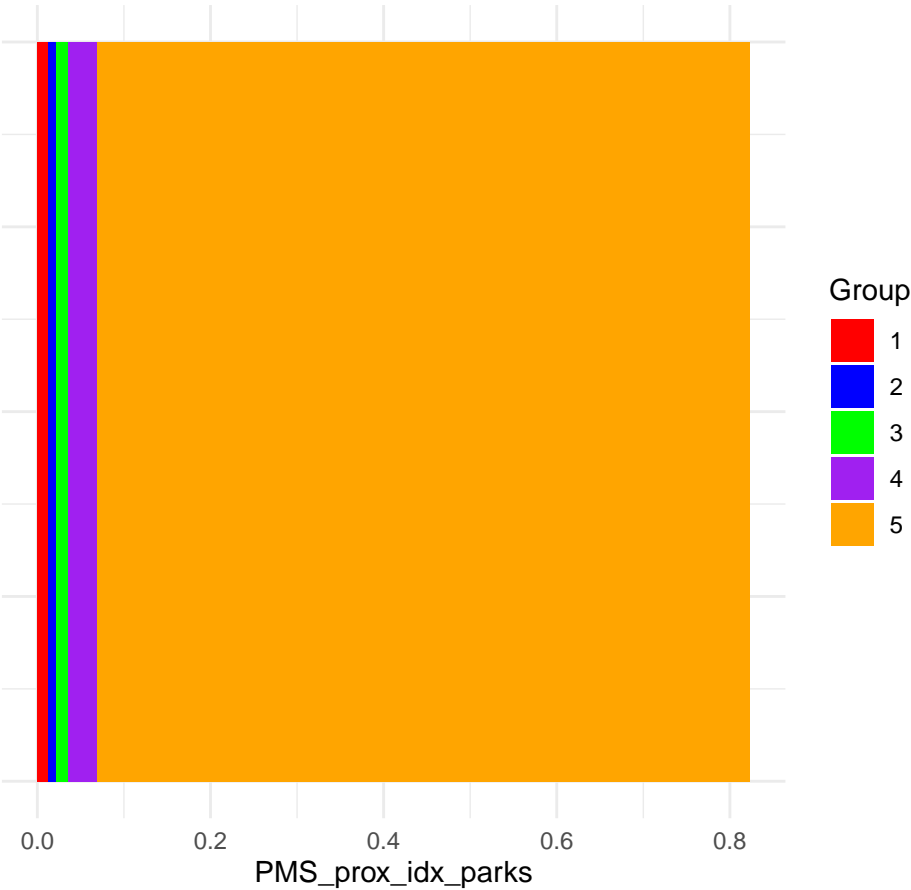
##	cluster	size	ave.sil.width
## 1	1	1171	0.63
## 2	2	746	0.58
## 3	3	1020	0.50
## 4	4	1600	0.43
## 5	5	2694	-0.07

Clusters silhouette plot  
Average silhouette width: 0.3



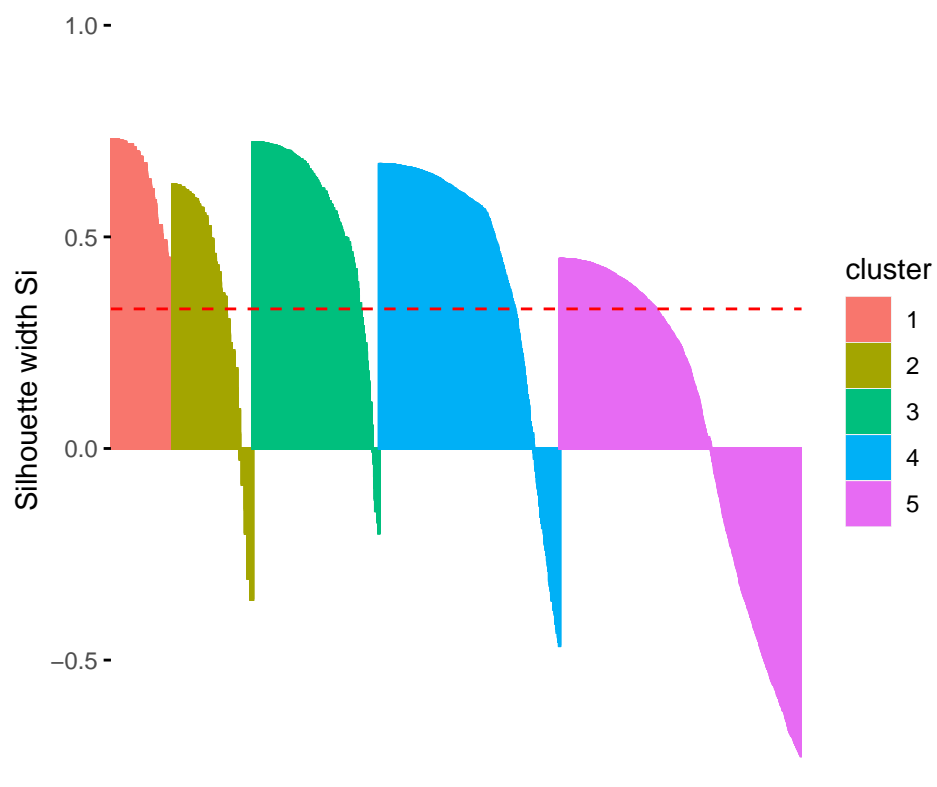
Parks

Cutoff Values by Quartile



##	cluster	size	ave.sil.width
## 1	1	621	0.63
## 2	2	811	0.37
## 3	3	1275	0.55
## 4	4	1823	0.43
## 5	5	2439	0.05

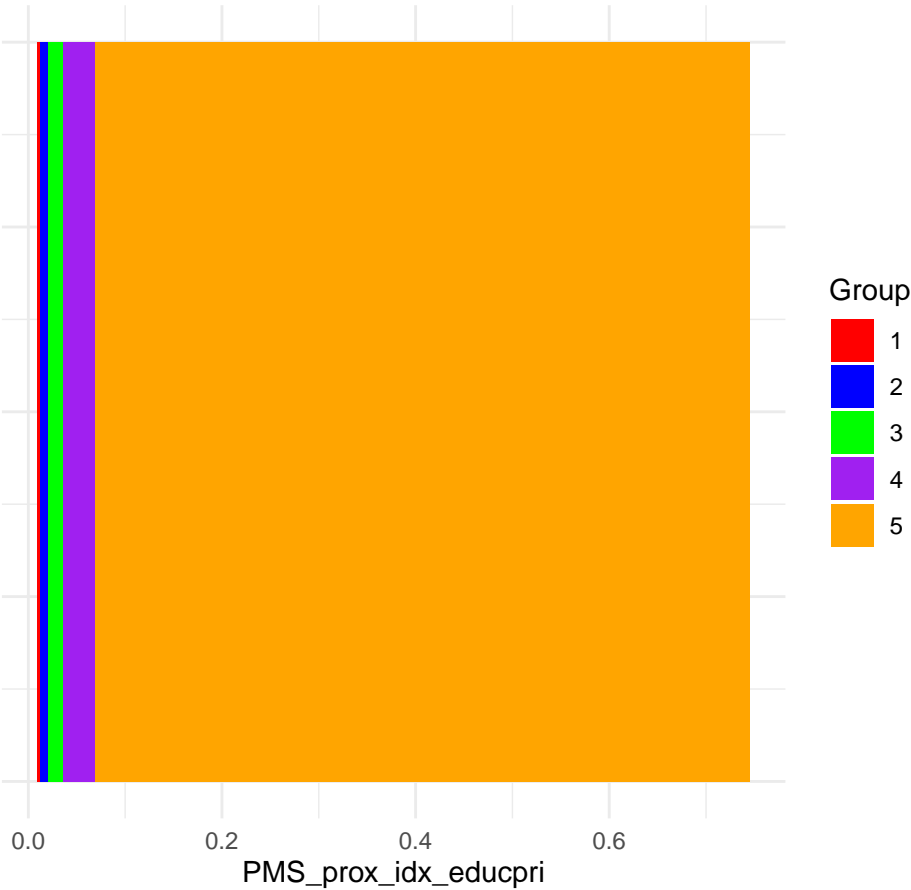
Clusters silhouette plot  
Average silhouette width: 0.33





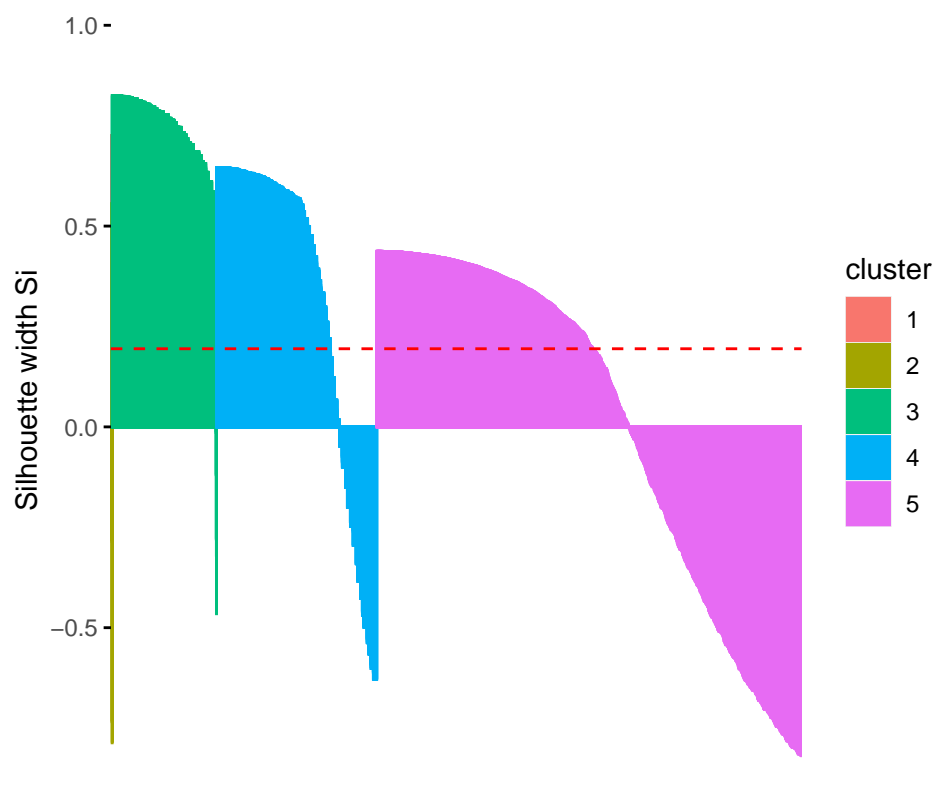
Education Primary

Cutoff Values by Quartile



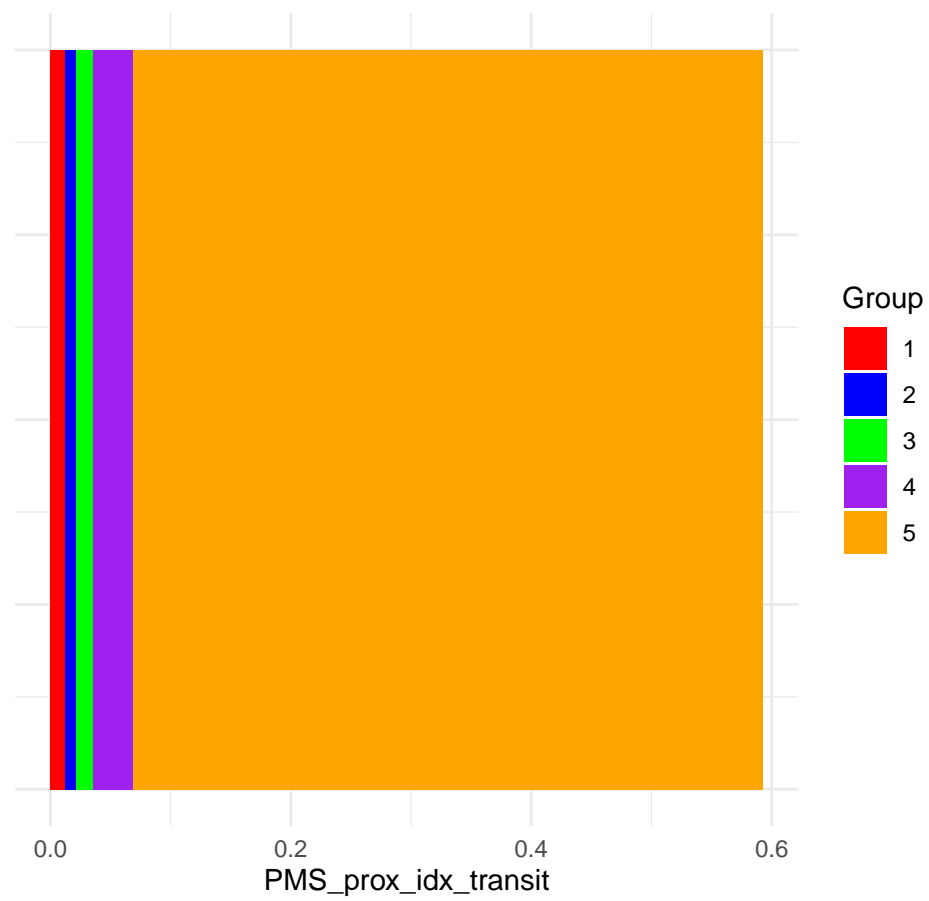
##	cluster	size	ave.sil.width
## 1	1	3	0.70
## 2	2	9	0.12
## 3	3	1011	0.75
## 4	4	1553	0.32
## 5	5	4115	0.01

Clusters silhouette plot  
Average silhouette width: 0.19



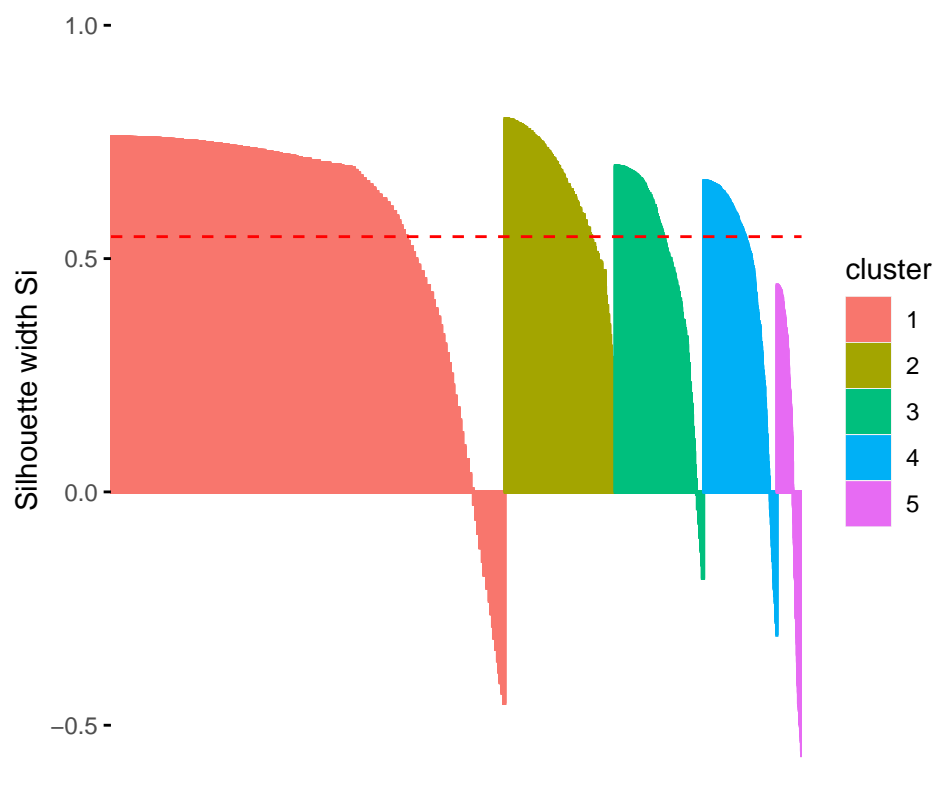
## Transit

Cutoff Values by Quartile



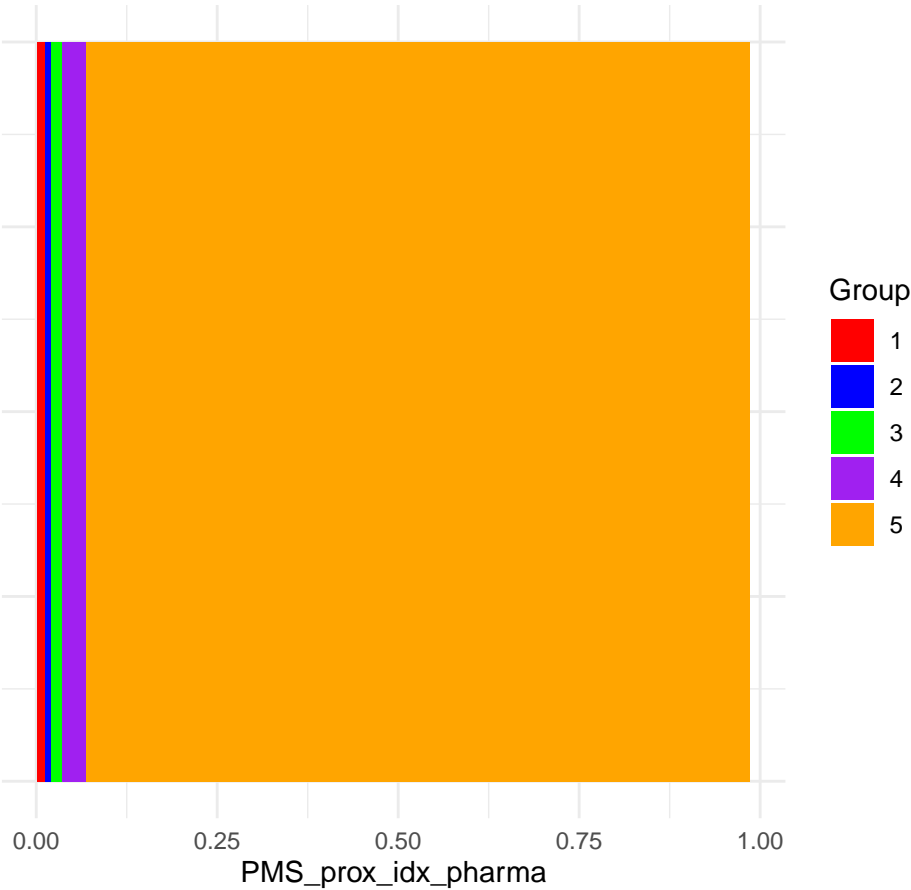
##	cluster	size	ave.sil.width
## 1	1	3034	0.57
## 2	2	848	0.65
## 3	3	683	0.49
## 4	4	564	0.46
## 5	5	189	0.10

Clusters silhouette plot  
Average silhouette width: 0.55



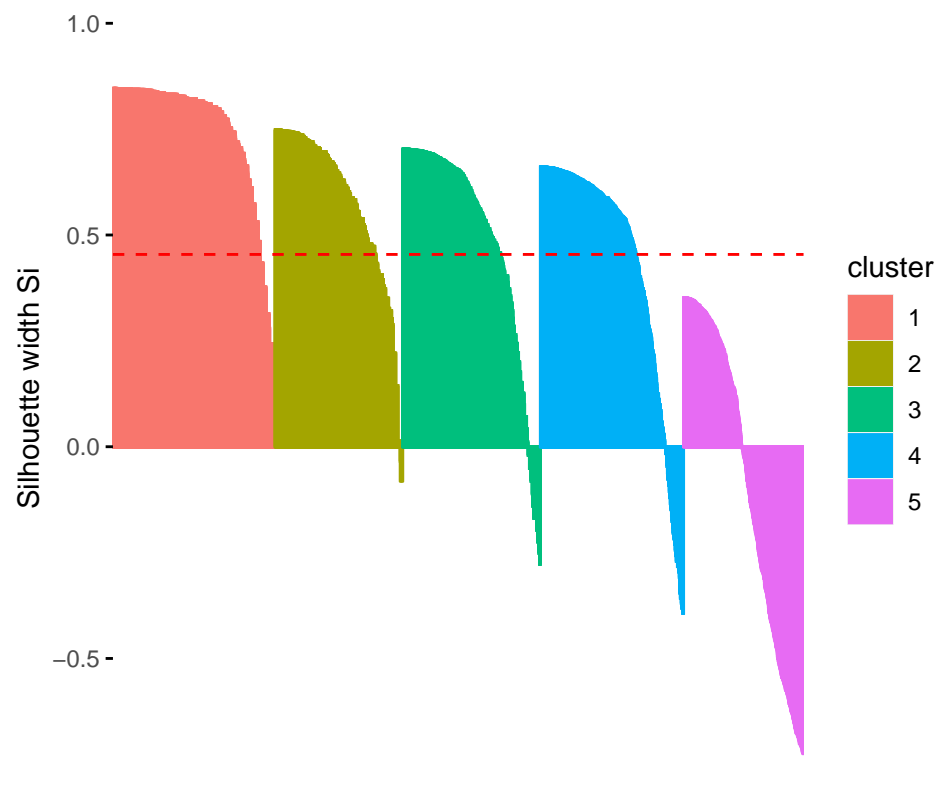
Pharma

Cutoff Values by Quartile



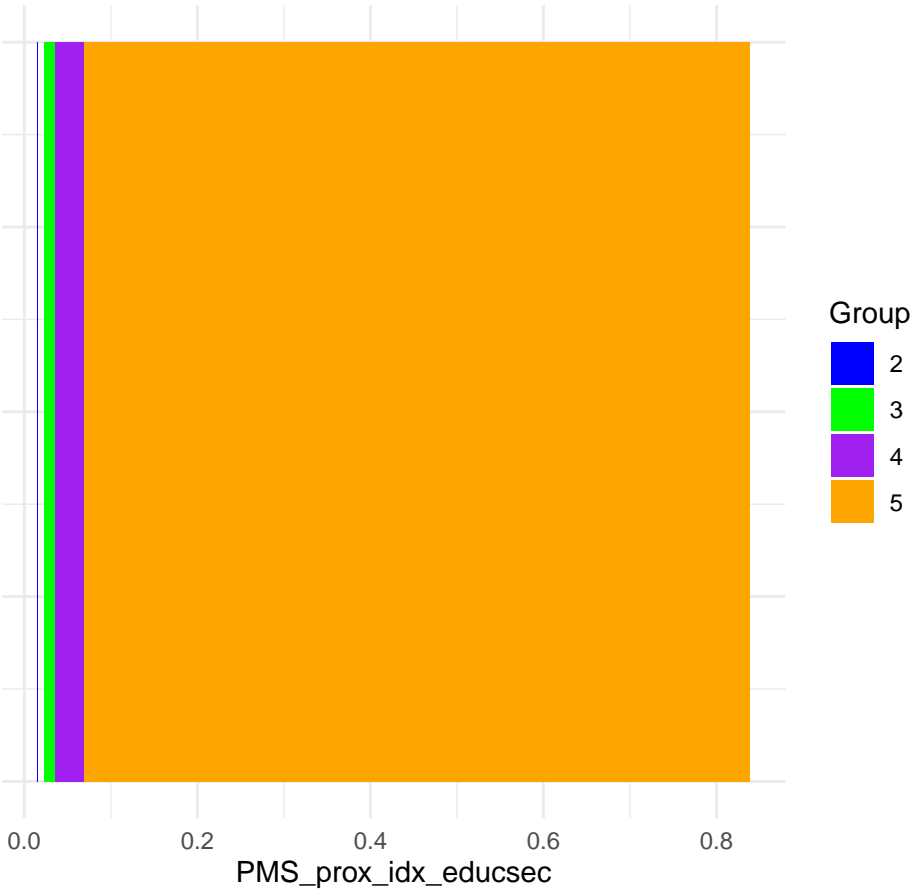
##	cluster	size	ave.sil.width
## 1	1	1228	0.75
## 2	2	967	0.58
## 3	3	1042	0.49
## 4	4	1086	0.43
## 5	5	908	-0.08

Clusters silhouette plot  
Average silhouette width: 0.45



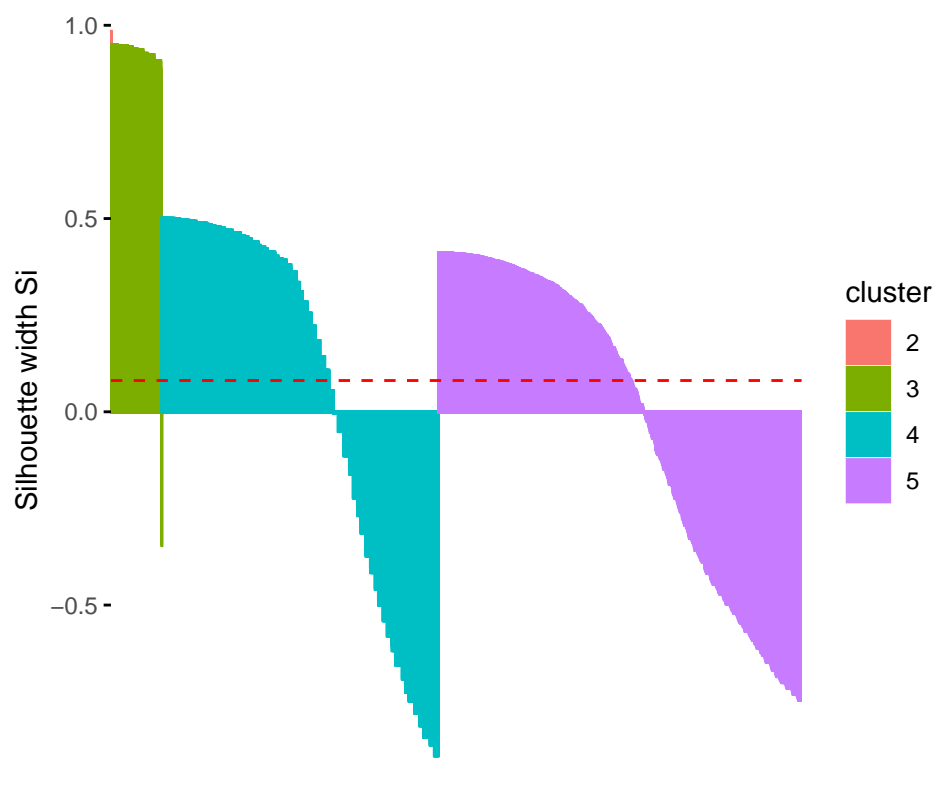
Education Secondary

Cutoff Values by Quartile



##	cluster	size	ave.sil.width
## 2	2	2	0.98
## 3	3	307	0.92
## 4	4	1677	0.06
## 5	5	2203	-0.02

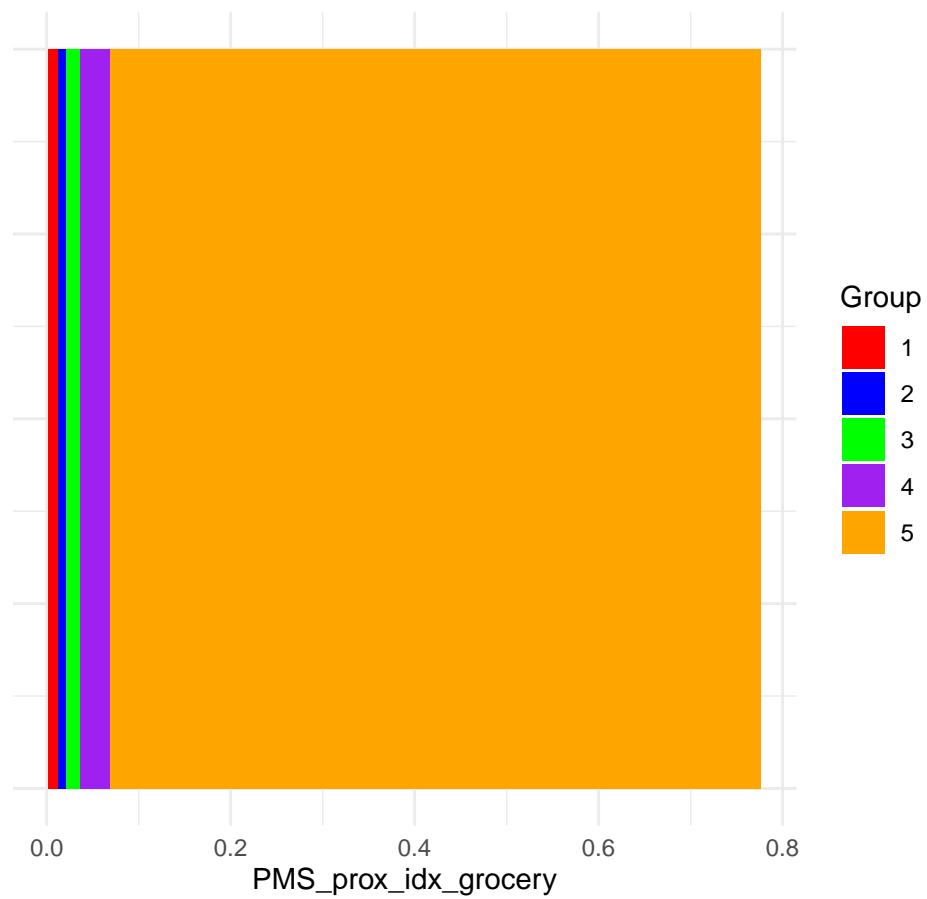
Clusters silhouette plot  
Average silhouette width: 0.08





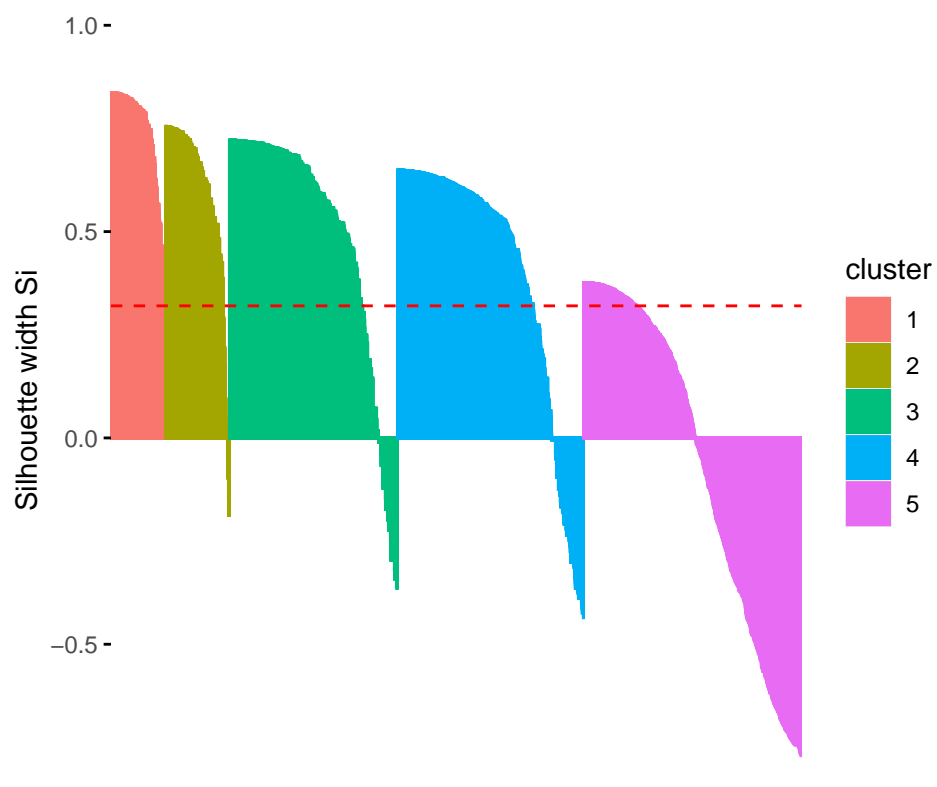
## Grocery

Cutoff Values by Quartile



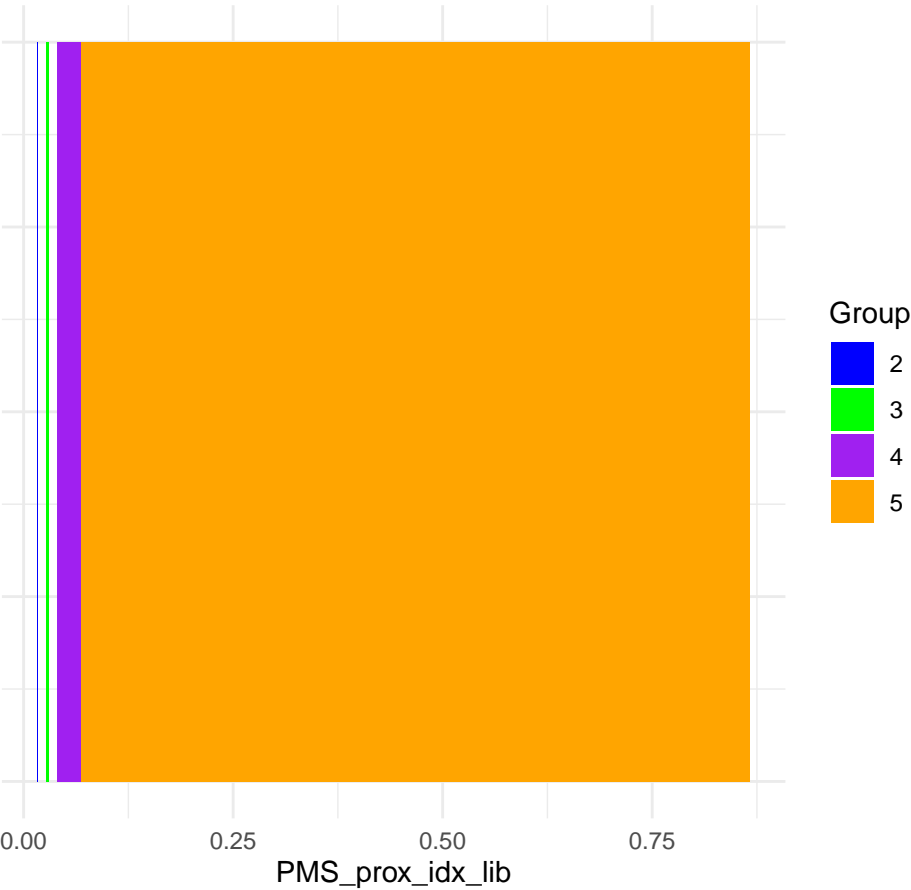
##	cluster	size	ave.sil.width
## 1	1	332	0.74
## 2	2	387	0.60
## 3	3	1022	0.49
## 4	4	1130	0.40
## 5	5	1324	-0.07

Clusters silhouette plot  
Average silhouette width: 0.32



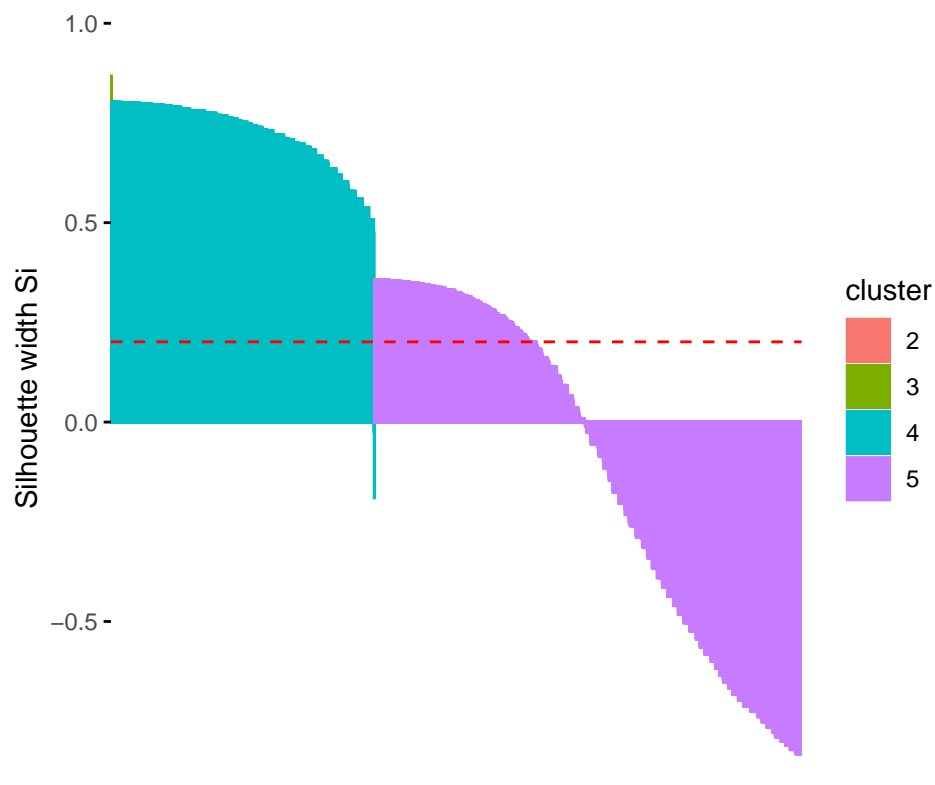
Library

Cutoff Values by Quartile



##	cluster	size	ave.sil.width
## 2	2	1	0.00
## 3	3	3	0.83
## 4	4	1251	0.72
## 5	5	2035	-0.12

Clusters silhouette plot  
Average silhouette width: 0.2



### Cut-offs

```
## $PMS_prox_idx_emp
## [1] 0.0120 0.0210 0.0360 0.0689 0.7249
##
## $PMS_prox_idx_pharma
## [1] 0.0120 0.0210 0.0360 0.0690 0.9857
##
## $PMS_prox_idx_childcare
## [1] 0.0120 0.0210 0.0360 0.0690 0.9208
##
## $PMS_prox_idx_health
## [1] 0.0120 0.0210 0.0360 0.0689 0.6759
##
## $PMS_prox_idx_grocery
## [1] 0.0120 0.0208 0.0360 0.0689 0.7763
##
## $PMS_prox_idx_educpri
## [1] 0.0119 0.0203 0.0359 0.0690 0.7452
##
## $PMS_prox_idx_educsec
## [1] 0.0156 0.0359 0.0690 0.8384
```

```

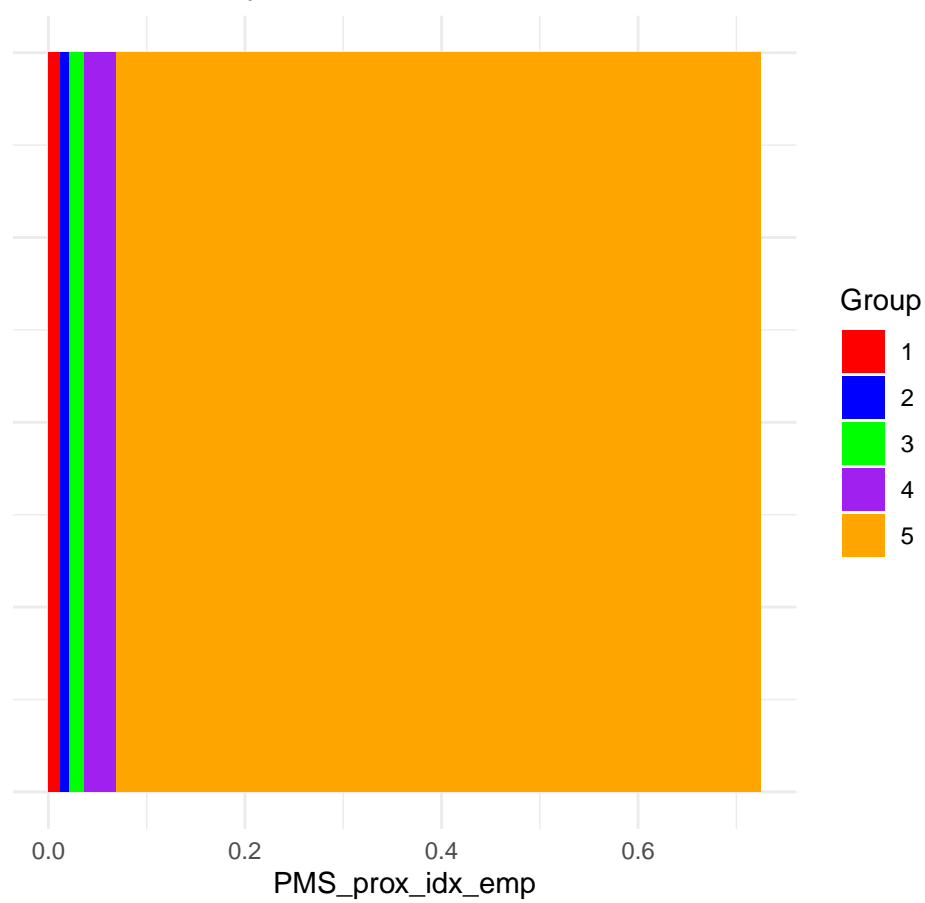
##
## $PMS_prox_idx_lib
## [1] 0.0166 0.0293 0.0690 0.8665
##
## $PMS_prox_idx_parks
## [1] 0.012 0.021 0.036 0.069 0.823
##
## $PMS_prox_idx_transit
## [1] 0.0120 0.0210 0.0360 0.0687 0.5926

## $'1'
##      0%    100%
## 0.0001 0.0120
##
## $'2'
##      0%    100%
## 0.0121 0.0210
##
## $'3'
##      0%    100%
## 0.0211 0.0360
##
## $'4'
##      0%    100%
## 0.0361 0.0689
##
## $'5'
##      0%    100%
## 0.0691 0.7249

## [1] 1e-04

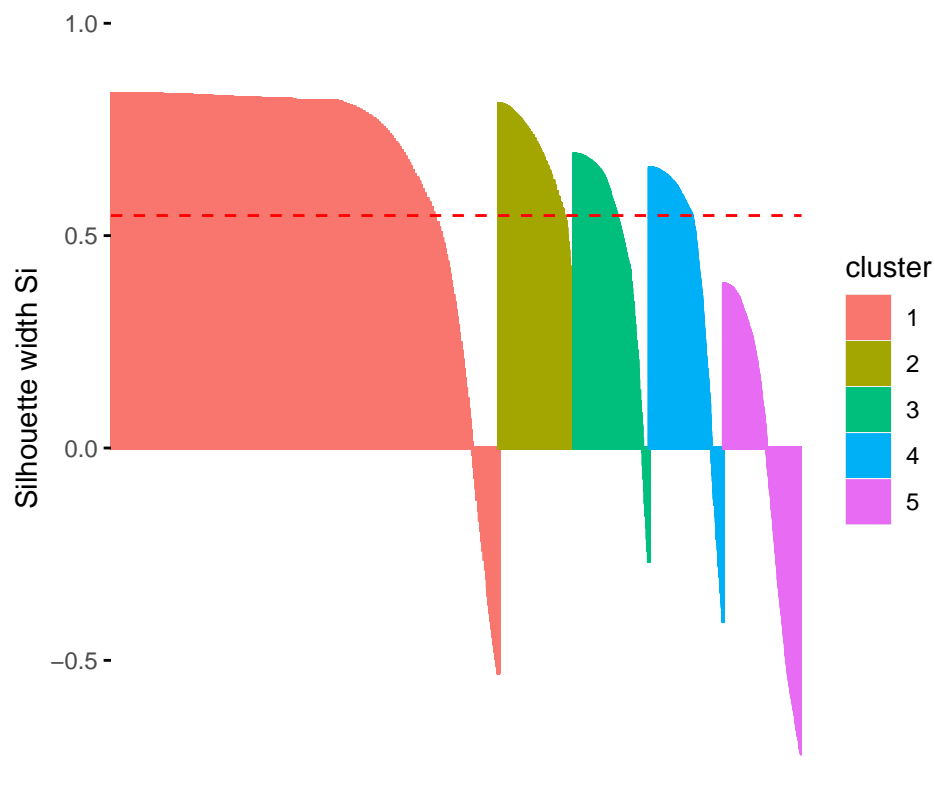
```

Cutoff Values by Quartile



##	cluster	size	ave.sil.width
## 1	1	6589	0.68
## 2	2	1270	0.68
## 3	3	1282	0.48
## 4	4	1259	0.41
## 5	5	1328	-0.03

Clusters silhouette plot  
Average silhouette width: 0.55



```
## [1] 0.0001524855
```

```
## $n
```

```
## [1] 11728
```

```
##
```

```
## $cluster.number
```

```
## [1] 5
```

```
##
```

```
## $cluster.size
```

```
## [1] 6589 1270 1282 1259 1328
```

```
##
```

```
## $min.cluster.size
```

```
## [1] 1259
```

```
##
```

```
## $noisen
```

```
## [1] 0
```

```
##
```

```
## $diameter
```

```
## [1] 0.0119 0.0089 0.0149 0.0328 0.6558
```

```
##
```

```
## $average.distance
```

```
## [1] 0.003428367 0.003016009 0.005027257 0.011044077 0.076618089
```

```

##
## $median.distance
## [1] 0.0025 0.0026 0.0044 0.0096 0.0432
##
## $separation
## [1] 1e-04 1e-04 1e-04 1e-04 2e-04
##
## $average.toother
## [1] 0.05545733 0.02907950 0.03351368 0.04751035 0.12304776
##
## $separation.matrix
##      [,1] [,2] [,3] [,4] [,5]
## [1,] 0.0000 0.0001 0.0091 0.0241 0.0571
## [2,] 0.0001 0.0000 0.0001 0.0151 0.0481
## [3,] 0.0091 0.0001 0.0000 0.0001 0.0331
## [4,] 0.0241 0.0151 0.0001 0.0000 0.0002
## [5,] 0.0571 0.0481 0.0331 0.0002 0.0000
##
## $ave.between.matrix
##      [,1] [,2] [,3] [,4] [,5]
## [1,] 0.00000000 0.01318497 0.02470638 0.04718151 0.13341507
## [2,] 0.01318497 0.00000000 0.01152141 0.03399653 0.12023009
## [3,] 0.02470638 0.01152141 0.00000000 0.02247513 0.10870869
## [4,] 0.04718151 0.03399653 0.02247513 0.00000000 0.08623356
## [5,] 0.13341507 0.12023009 0.10870869 0.08623356 0.00000000
##
## $average.between
## [1] 0.0575659
##
## $average.within
## [1] 0.01266355
##
## $n.between
## [1] 43762987
##
## $n.within
## [1] 25004141
##
## $max.diameter
## [1] 0.6558
##
## $min.separation
## [1] 1e-04
##
## $within.cluster.ss
## [1] 10.08346
##
## $clus.avg.silwidths
##      1      2      3      4      5
## 0.67617705 0.68292005 0.48128683 0.41009683 -0.02764407
##
## $avg.silwidth
## [1] 0.5473439
##

```



```

## $g2
## NULL
##
## $g3
## NULL
##
## $pearsongamma
## [1] 0.4052869
##
## $dunn
## [1] 0.0001524855
##
## $dunn2
## [1] 0.1503745
##
## $entropy
## [1] 1.292843
##
## $wb.ratio
## [1] 0.2199835
##
## $ch
## [1] 5963.632
##
## $cwidegap
## [1] 0.0001 0.0001 0.0001 0.0003 0.0395
##
## $widestgap
## [1] 0.0395
##
## $sindex
## [1] 0.000840785
##
## $corrected.rand
## NULL
##
## $vi
## NULL

```

```
## [1] 0.55
```

```
->
```