```
> source("budget_by_factors.r",echo=T)

> aggregate(budget[,c("CB08","CB09","CB10","CB.total")],list(results.7$grade),median)
  Group.1  CB08  CB09  CB10 CB.total
1       A 174.0 258.5 283.0    788.0
2       B 214.5 304.5 258.5    796.5
3       C 103.0 200.0 187.0    474.0

> aggregate(budget[,c("CB08","CB09","CB10","CB.total")],list(results.7$grade),mean, trim=0.05)
  Group.1     CB08     CB09     CB10 CB.total
1       A 174.8765 277.0294 303.8118 755.7176
2       B 228.9550 372.2100 347.0900 938.0450
3       C 137.6759 239.1621 235.8621 670.0172

> aggregate(budget[,c("PP08","PP09","PP10","PP.total")],list(results.7$grade),median)
  Group.1  PP08   PP09  PP10 PP.total
1       A 424.0 1129.5 482.0   1986.3
2       B 190.8  386.0 421.9   1006.4
3       C 147.0  403.0 439.0   1188.0

> aggregate(budget[,c("PP08","PP09","PP10","PP.total")],list(results.7$grade),mean, trim=0.05)
  Group.1     PP08     PP09     PP10 PP.total
1       A 485.6941 875.3059 712.0588 2073.059
2       B 395.9250 608.7900 611.0750 1631.490
3       C 220.9759 428.7276 485.4310 1218.341

> aggregate(budget[,c("PM08","PM09","PM10","PM.total")],list(results.7$grade),median)
  Group.1  PM08  PM09  PM10 PM.total
1       A 542.6 901.0 865.0   2270.0
2       B 329.0 675.1 652.1   1749.8
3       C 287.0 695.0 749.0   2018.0

> aggregate(budget[,c("PM08","PM09","PM10","PM.total")],list(results.7$grade),mean, trim=0.05)
  Group.1     PM08      PM09     PM10 PM.total
1       A 607.8118 1010.3294 908.0353 2526.176
2       B 373.9550  796.6600 741.2550 1929.410
3       C 357.5241  795.1034 794.3103 1975.490

> aggregate(budget[,c("RD08","RD09","RD10","RD.total")],list(results.7$grade),median)
  Group.1 RD08 RD09 RD10 RD.total
1       A   50  100  100    400.0
2       B    0   30    5     40.5
3       C    0    0    0     55.0

> aggregate(budget[,c("RD08","RD09","RD10","RD.total")],list(results.7$grade),mean, trim=0.05)
  Group.1     RD08      RD09      RD10 RD.total
1       A 87.52941 206.35294 180.87059 474.7529
2       B 54.93500  76.55000  33.40000 177.7100
3       C 27.09655  71.35517  86.37931 191.9690

> aggregate(budget[,c("CT08","CT09","CT10","CT.total")],list(results.7$grade),median)
  Group.1   CT08 CT09 CT10 CT.total
1       A  76.00  210  152    563.0
2       B 313.95  648  400   1276.9
3       C  86.00  110  270    637.0

> aggregate(budget[,c("CT08","CT09","CT10","CT.total")],list(results.7$grade),mean, trim=0.05)
  Group.1     CT08     CT09     CT10  CT.total
1       A 207.8824 310.5471 248.9706  767.4000
2       B 373.2950 735.9800 511.8500 1702.5250
3       C 146.2586 316.7207 400.8621  884.8414

> aggregate(budget[,c("CB08","CB09","CB10","CB.total")],list(results.7$Region),median)
  Group.1  CB08 CB09 CB10 CB.total
1    영남 159.6  260  208   604.50
2    중부 215.0  305  268   864.80
3    호남 120.0  207  267   710.15

> aggregate(budget[,c("CB08","CB09","CB10","CB.total")],list(results.7$Region),mean, trim=0.05)
  Group.1     CB08     CB09     CB10 CB.total
1    영남 164.3053 255.9053 205.7211 632.5105
2    중부 198.8391 375.2304 271.6957 843.7522
3    호남 153.0727 252.2591 369.1318 817.8000

> aggregate(budget[,c("PP08","PP09","PP10","PP.total")],list(results.7$Region),median)
  Group.1  PP08   PP09  PP10 PP.total
1    영남 280.0 730.00 640.0  1620.00
2    중부 222.0 380.00 375.8  1085.90
3    호남 148.5 429.55 433.0   943.85

> aggregate(budget[,c("PP08","PP09","PP10","PP.total")],list(results.7$Region),mean, trim=0.05)
  Group.1     PP08     PP09     PP10 PP.total
1    영남 399.9579 787.6684 719.4895 1980.432
2    중부 271.4957 457.3783 532.5565 1334.909
3    호남 341.1364 562.9864 506.2227 1438.359

> aggregate(budget[,c("PM08","PM09","PM10","PM.total")],list(results.7$Region),median)
  Group.1  PM08 PM09  PM10 PM.total
1    영남 392.6  792 711.0  2042.70
2    중부 306.0  695 745.9  1793.00
3    호남 274.0  829 966.0  2239.85

> aggregate(budget[,c("PM08","PM09","PM10","PM.total")],list(results.7$Region),mean, trim=0.05)
  Group.1     PM08     PM09     PM10 PM.total
1    영남 430.2053 933.5421 766.5684 2154.737
2    중부 427.1826 678.4348 727.5652 1847.487
3    호남 389.7273 905.7000 914.6318 2261.832

> aggregate(budget[,c("RD08","RD09","RD10","RD.total")],list(results.7$Region),median)
  Group.1 RD08 RD09 RD10 RD.total
1    영남  108   38 17.0    210.0
2    중부    0   30 21.0     51.0
3    호남    0    0 13.5     61.5

> aggregate(budget[,c("RD08","RD09","RD10","RD.total")],list(results.7$Region),mean, trim=0.05)
  Group.1     RD08     RD09      RD10 RD.total
1    영남 86.38421 85.73684  48.15789 226.6737
2    중부 41.86957 95.36087  90.68696 234.4391
3    호남 22.19091 99.00000 137.95455 303.1909

> aggregate(budget[,c("CT08","CT09","CT10","CT.total")],list(results.7$Region),median)
  Group.1  CT08  CT09  CT10 CT.total
1    영남 240.0 250.0 270.0    914.3
2    중부 108.0 237.6 226.7    627.9
3    호남 121.5 466.5 304.0   1065.0
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```
> aggregate(budget[,c("CT08","CT09","CT10","CT.total")],list(results.7$Region),mean,trim=0.05)
  Group.1     CT08     CT09     CT10 CT.total
1    영남 246.5053 333.2263 418.3842 1105.747
2    중부 222.2522 400.2130 343.7565 1016.135
3    호남 189.3636 498.7091 393.4909 1158.532

> aggregate(budget[,c("CB08","CB09","CB10","CB.total")],list(results.7$class),median)
  Group.1  CB08  CB09 CB10 CB.total
1  Better 156.5 225.1  201    578.1
2  Middle 145.8 317.0  247    780.0
3   Under 159.6 260.0  295    736.0

> aggregate(budget[,c("CB08","CB09","CB10","CB.total")],list(results.7$class),mean,trim=0.05)
  Group.1     CB08     CB09     CB10  CB.total
1  Better 166.5903 244.1129 212.3484  650.5355
2  Middle 151.8000 342.9444 310.5111  805.2556
3   Under 290.1421 468.0474 596.0842 1354.2737

> aggregate(budget[,c("PP08","PP09","PP10","PP.total")],list(results.7$class),median)
  Group.1  PP08  PP09   PP10 PP.total
1  Better 200.0 380.0 427.00   1123.0
2  Middle 214.5 567.5 384.45   1363.3
3   Under 190.0 810.0 807.80   1620.0

> aggregate(budget[,c("PP08","PP09","PP10","PP.total")],list(results.7$class),mean,trim=0.05)
  Group.1     PP08     PP09     PP10 PP.total
1  Better 274.2355 463.1194 457.4806 1248.545
2  Middle 326.4667 754.4778 639.8444 1720.789
3   Under 518.1526 751.9368 899.1000 2169.189

> aggregate(budget[,c("PM08","PM09","PM10","PM.total")],list(results.7$class),median)
  Group.1  PM08  PM09  PM10 PM.total
1  Better 287.0 705.0 794.0  2018.00
2  Middle 396.9 760.5 765.6  1984.35
3   Under 322.0 792.0 697.2  2143.70

> aggregate(budget[,c("PM08","PM09","PM10","PM.total")],list(results.7$class),mean, trim=0.05)
  Group.1     PM08     PM09     PM10 PM.total
1  Better 396.4871 810.0194 777.1968 2005.187
2  Middle 487.0556 900.2167 843.0389 2230.311
3   Under 422.9474 887.3263 827.1000 2137.374

> aggregate(budget[,c("RD08","RD09","RD10","RD.total")],list(results.7$class),median)
  Group.1 RD08 RD09 RD10 RD.total
1  Better    0   30 20.0     55.0
2  Middle    0    0 13.5     61.5
3   Under    0    0 66.0    220.5

> aggregate(budget[,c("RD08","RD09","RD10","RD.total")],list(results.7$class),mean, trim=0.05)
  Group.1     RD08      RD09      RD10 RD.total
1  Better 50.20000  98.42903  91.96774 252.4032
2  Middle 57.71111  73.33333  52.60000 183.6444
3   Under 55.26316 174.47368 201.26316 431.0000

> aggregate(budget[,c("CT08","CT09","CT10","CT.total")],list(results.7$class),median)
  Group.1 CT08 CT09  CT10 CT.total
1  Better   95  166 226.7    627.9
2  Middle  296  441 402.1   1250.9
3   Under    0  240 145.0    645.0

> aggregate(budget[,c("CT08","CT09","CT10","CT.total")],list(results.7$class),mean, trim=0.05)
  Group.1     CT08     CT09     CT10  CT.total
1  Better 170.9742 370.0935 348.0935  934.6548
2  Middle 391.0167 644.7167 634.7111 1670.4444
3   Under 222.6789 458.0000 378.2526 1058.9316
```