

Package ‘PabonLasso’

September 5, 2015

Type Package

Title Pabon Lasso Graphs and Comparing Situations of a Unit in Two Different Times

Version 1.0

Date 2015-08-19

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Description

Pabon Lasso is a graphical method for monitoring the efficiency of different wards of a hospital or different hospitals. Pabon Lasso graph is divided into 4 parts which are created after drawing the average of BTR and BOR. The part in the left-down side is Zone I, left-up side is Zone II, Right-up side part is Zone III and the last part is Zone IV.

License GPL (>= 2)

NeedsCompilation no

Repository CRAN

Date/Publication 2015-09-05 15:38:30

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PabonLasso-package *Pabon Lasso Graphs and Comparing Situations of a Unit in Two Different Times*

Description

Pabon Lasso graphs are used for showing the performance of hospitals or different wards of a hospital to define the most efficative wards. In this package we can draw the pabon lasso graph for a set of wards of a hospital or different hospitals in 2 different times. X axis in each graph shows the Bed Occupation Rates and Y axis shows the Bed Turn over Rates. In the graphs, Mean value of each axis is shown by bold lines and the code of each ward/ hospital is shown in a circle and the transitions of them in 2 times are marked by coloured circles.

Details

Package: PabonLasso
 Type: Package
 Version: 1.0
 Date: 2015-08-19
 License: What license is it under?

Author(s)

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References

Pabon LH. "Evaluating hospital performance through simultaneous application of several indicators." Bulletin of the Pan American Health Organization. 1985;20(4):341-57
 Pabon LH. "A simplified method of evaluating hospital performance." Boleten de la Oficina Sanitaria Panamericana Pan American Sanitary Bureau. 1984;97(1):33

Examples

```
## Assigning the BOR1, BTR1, BOR2, BTR2 vectors

BOR1=c(72.54,48.86,42.77,40.81,60,28.61,20.29,12.84,100,47.07,78.51,45,49,20,88,90)
BTR1=c(12.05,12.5,6.83,4.35,5.33,7.77,6.28,2.73,35.07,13.23,12.21,12,4,5,25,16)
BOR2=c(40,55.37,80,17.33,40,84,57.91,9.73,30,34.09,57.52,50,55,30,35,20)
BTR2=c(15.22,15.58,6.52,2.35,10.75,25,27.11,1.867,9,9.695,11.20,5,14,25,23,26)

p1(BOR1,BTR1,BOR2,BTR2,MainLabel1="Feb 2013 ",MainLabel2="Feb 2014 ",HA1="BOR 2013",
HA2="BOR 2014",VA1="BTR 2013",VA2="BTR 2014")
```

BOR1*Is a vector of Bed Occupation Rates at the beginning of study*

Description

Is a vector of Bed Occupation Rates at the beginning of study

Usage

```
data(BOR1)
```

Format

The format is: num [1:16] 72.5 48.9 42.8 40.8 60 ...

Examples

```
BOR1=c(72.54, 48.86, 42.77, 40.81, 60, 28.61, 20.29, 12.84, 100, 47.07, 78.51, 45, 49, 20, 88, 90)
```

BOR2*Is a vector of Bed Occupation Rates at the end of study*

Description

Is a vector of Bed Occupation Rates at the end of study

Usage

```
data(BOR2)
```

Format

The format is: num [1:16] 12.05 12.5 6.83 4.35 5.33 ...

Examples

```
BOR2=c(12.05, 12.5, 6.83, 4.35, 5.33, 7.77, 6.28, 2.73, 35.07, 13.23, 12.21, 12, 4, 5, 25, 16)
```

BTR1*Is a vector of Bed TurnOver Rates at the beginning of study*

Description

Is a vector of Bed TurnOver Rates at the beginning of study

Usage

```
data(BTR1)
```

Format

The format is: num [1:16] 40 55.37 80 17.33 40 ...

Examples

```
BOR1=c(40,55.37,80,17.33,40,84,57.91,9.73,30,34.09,57.52,50,55,30,35,20)
```

BTR2*Is a vector of Bed TurnOver Rates at the end of study*

Description

Is a vector of Bed TurnOver Rates at the end of study

Usage

```
data(BTR2)
```

Format

The format is: num [1:16] 15.22 15.58 6.52 2.35 10.75 ...

Examples

```
BOR1=c(15.22,15.58,6.52,2.35,10.75,25,27.11,1.867,9,9.695,11.20,5,14,25,23,26)
```

pl *Pabon Lasso Graphs and Comparing Situations of a Unit in Two Different Times*

Description

Pabon Lasso graphs are used for showing the performance of hospitals or different wards of a hospital to define the most efficative wards. In this package we can draw the pabon lasso graph for a set of wards of a hospital or different hospitals in 2 different times. X axis in each graph shows the Bed Occupation Rates and Y axis shows the Bed Turn over Rates. In the graphs, Mean value of each axis is shown by bold lines and the code of each ward/ hospital is shown in a circle and the transitions of them in 2 times are marked by coloured circles.

Usage

```
pl(BOR1,BTR1,BOR2,BTR2,MainLabel1="",MainLabel2="",HA1="",HA2="",VA1="",VA2="")
```

Arguments

BOR1	Is a vector of Bed Occupation Rate of wards or hospitals at the first time
BTR1	Is a vector of Bed Turn over Rate of wards or hospitals at the first time
BOR2	Is a vector of Bed Occupation Rate of wards or hospitals at the second time
BTR2	Is a vector of Bed Turn over Rate of wards or hospitals at the second time
MainLabel1	Is a String Value to use as the Lable for the first graph
MainLabel2	Is a String value to use as the Lable for the second graph
HA1	Is a String Value to use as Lable for horizontal axis in first graph
HA2	Is a String Value to use as Lable for horizontal axis in second graph
VA1	Is a String Value to use as Lable for vertical axis in first graph
VA2	Is a String Value to use as Lable for vertical axis in second graph

Details

Pabon Lasso graph is divided into 4 parts which are created after drawing the average of BTR and BOR. The part in the left-down side is Zone I, left-up side is Zone II, Right-up side part is Zone III and the last part is Zone IV. Wards/ hospitals which allocated in part III are the most efficative wards and those which hold in zone I are the less efficative ones. In this package we draw to pabon Lasso graphs. In the left hand graph we show the situation of wards/hospitals at the beginning of a time and in the right hand graph we show the situation of them at the end of a time duration. In the right hand graph we have 2 vertical and 2 horizontal lines, one of them is bold and another one is dashed. Bold lines are shown the mean of BOR and BTR at the end of time duration and dashed lines are shown the mean of BOR and BTR at the beginning time. At this graph you may see some coloured circles for wards/hospitals which have transition between zones.

Value

Red circles: Wards/hospitals which entered to zone I from other zones
 Green circles: Wards/hospitals which entered to zone III from other zones
 GreenYellow circles: Wards/hospitals which entered to zone II and zone IV from zone III
 Pink circles: Wards/hospitals which entered to zone II and zone IV from zone I
 Hollow circles: Wards/hospitals which don't have any transitions

Author(s)

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Examples

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BOR1=c(72.54,48.86,42.77,40.81,60,28.61,20.29,12.84,100,47.07,78.51,45,49,20,88,90)
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BOR2=c(40,55.37,80,17.33,40,84,57.91,9.73,30,34.09,57.52,50,55,30,35,20)
BTR2=c(15.22,15.58,6.52,2.35,10.75,25,27.11,1.867,9,9.695,11.20,5,14,25,23,26)

pl(BOR1,BTR1,BOR2,BTR2,MainLabel1="Feb 2013 ",MainLabel2="Feb 2014 ",HA1="BOR 2013",
HA2="BOR 2014",VA1="BTR 2013",VA2="BTR 2014")
```

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