

# Exploring subgroups at one sweep

A short introduction to a new perspective on subgroup screening

PSI 2018 – Amsterdam  
Susanne Lippert and Bodo Kirsch

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

no selection

Subgroup levels



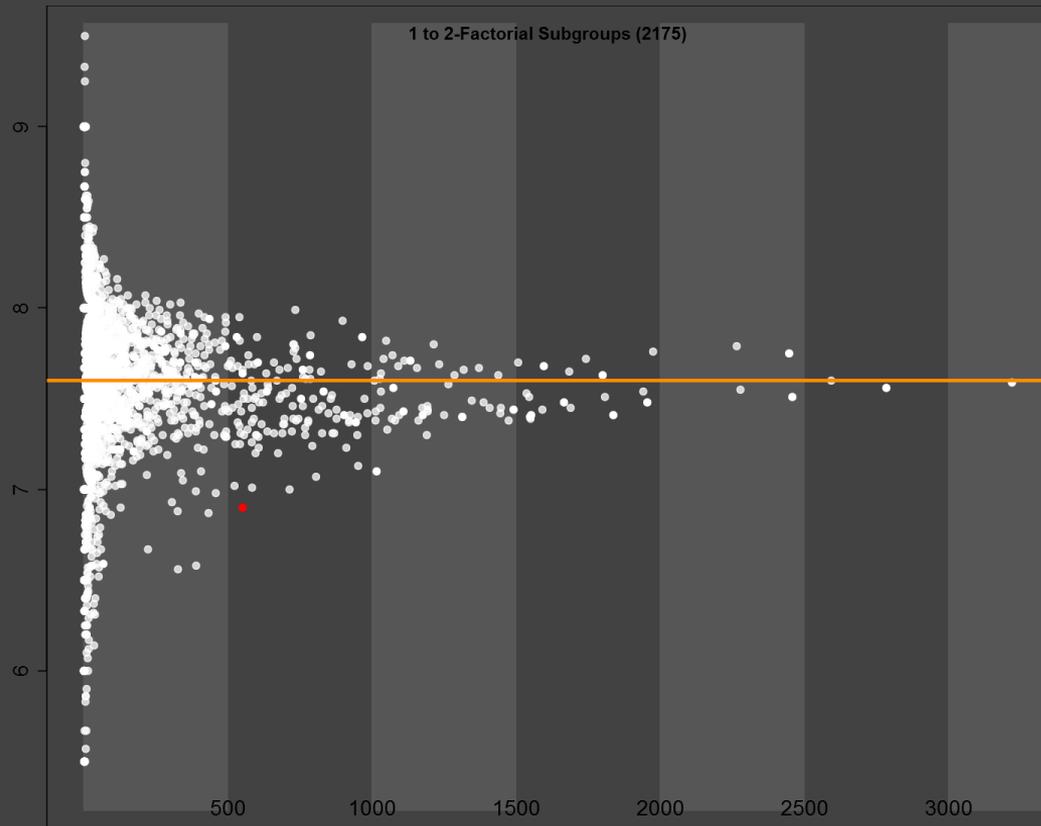
Plot type

linear  logarithmic

Reference line



Y Range



Selected Subgroups

[Filtered Subgroups](#)

Show 6 entries

Search:

SGID

number.of.subjects

satisfact

nfactors

smoker

graduat\_f

1170

1170

551

6.9

2

Y

elementary school

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number of subjects

Subgroup Filter

no selection

Subgroup levels



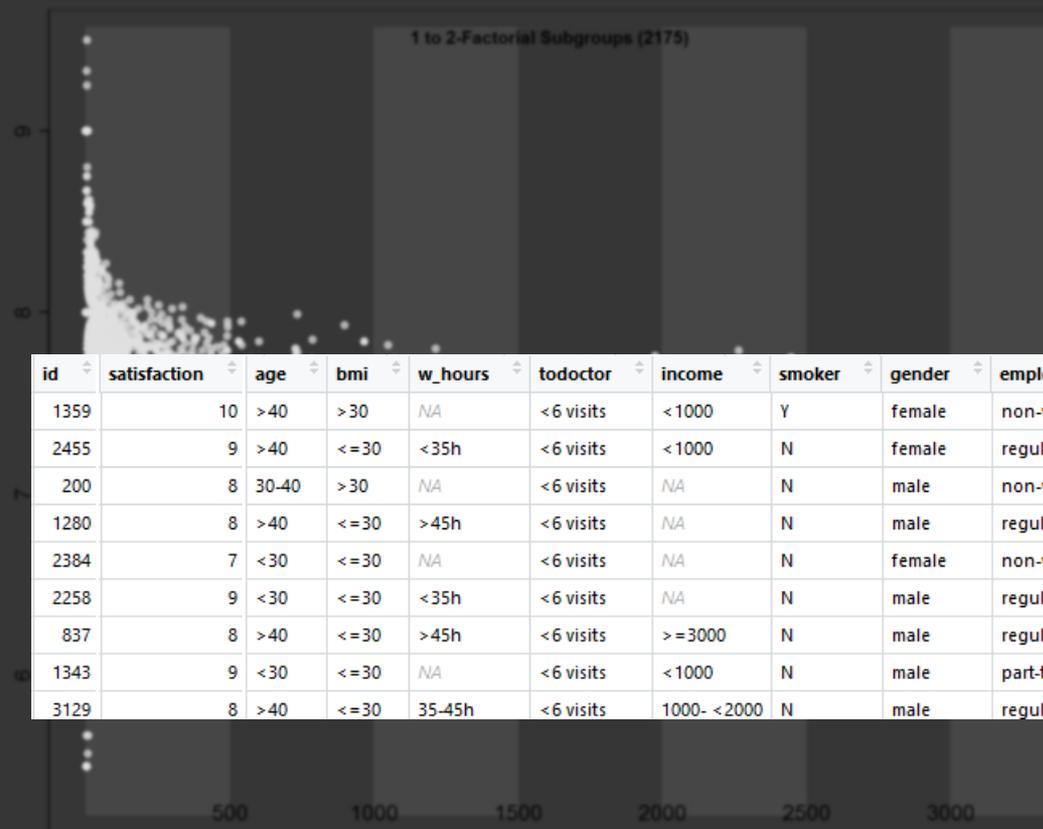
Plot type

 linear
  logarithmic

Reference line



Y Range



Selected Subgroups

Filtered Subgroups

6

SMD

number of subjects

satisfact

refactors

smoker

graduat\_1

1170

1170

551

6.9

2

Y

elementary school

Target variable (Y-Axis)  
satisfact

Reference variable (X-Axis)  
number.of.subjects

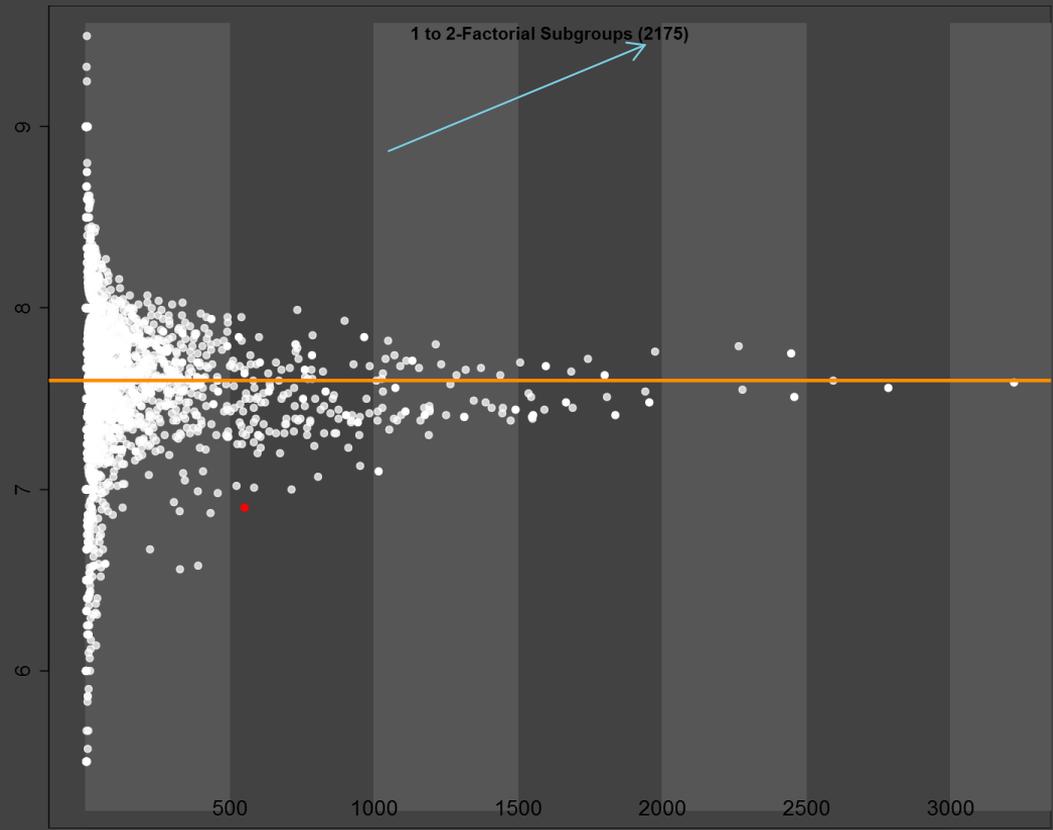
Subgroup Filter  
no selection

Subgroup levels  
1 2 3

Plot type  
 linear  logarithmic

Reference line  
7.6

Y Range  
5.3 9.5



Selected Subgroups | Filtered Subgroups

Show 6 entries

SGID	number.of.subjects	satisfact	nfactors	smoker	graduat_f
1170	1170	6.9	2	Y	elementary school

target variable (Y-Axis)  
satisfact

Reference variable (X-Axis)  
number.of.subjects

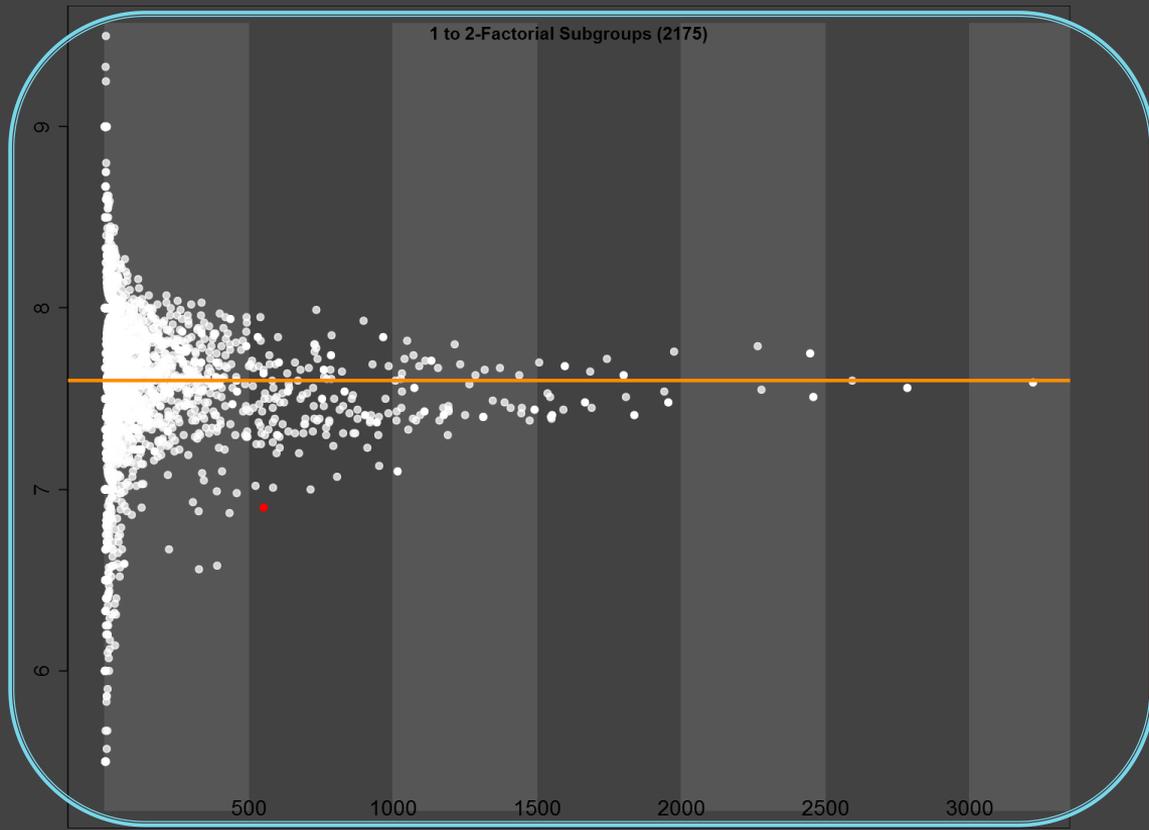
Subgroup Filter  
no selection

Subgroup levels  
1 2 3

Plot type  
 linear  logarithmic

Reference line  
7.6

Y Range  
5.3 9.5



Selected Subgroups   Filtered Subgroups

Subgroup	number.of.subjects	satisfact	nfactors	smoker	graduat_f	
6	1170	551	6.9	2	Y	elementary school

Showing 1 to 1 of 1 entries

# Subgroup Explorer

Target variable (Y-Axis)  
satisfact

Reference variable (X-Axis)  
number.of.subjects

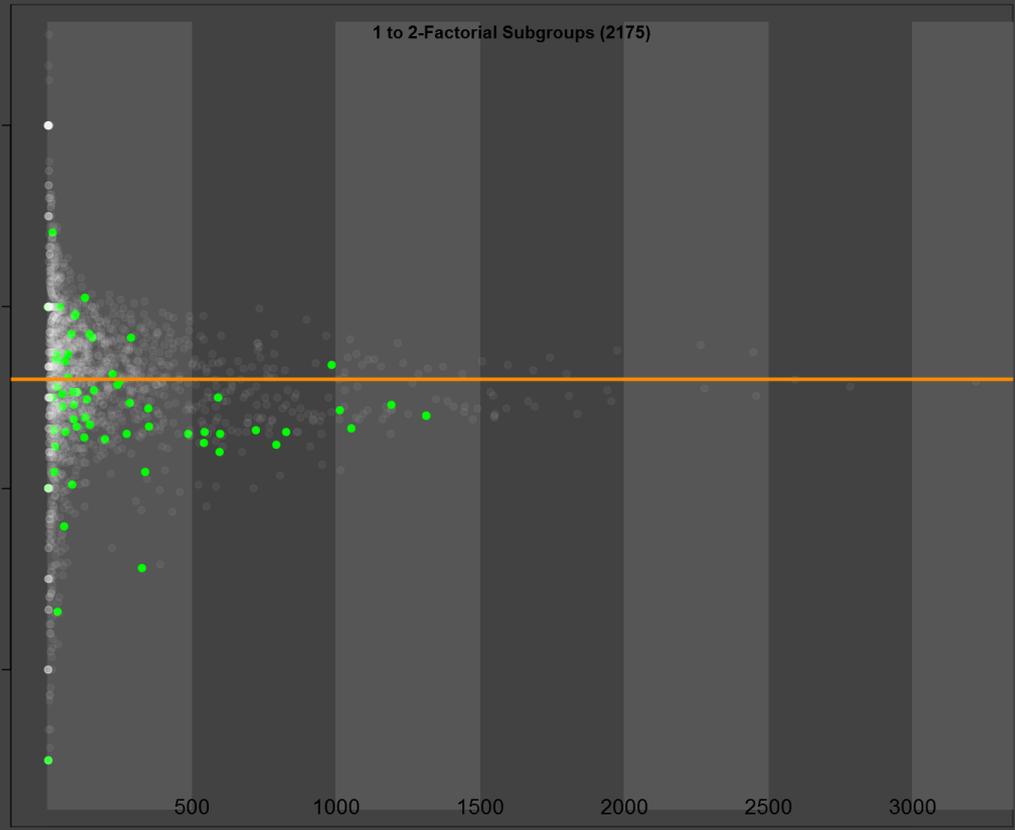
Subgroup Filter  
employed

- no selection
- gender
- employed
- smoker
- graduat
- graduat\_f
- graduat\_m
- high\_grad

Plot type  
 linear  logarithmic

Reference line  
7.6

Y Range  
5.3 9.5



Selected Subgroups Filtered Subgroups

# Subgroup Explorer

Target variable (Y-Axis)  
satisfact

Reference variable (X-Axis)  
number.of.subjects

Subgroup Filter  
employed  
Choose a value  
non-working

Subgroup levels  
1 2

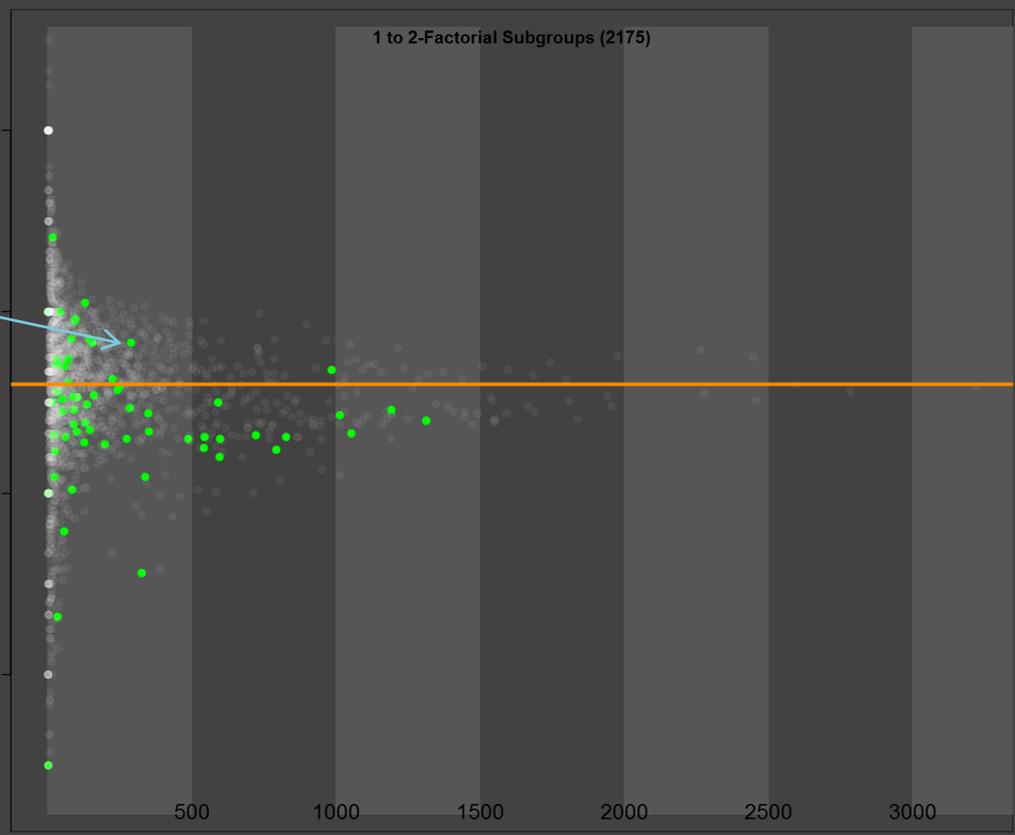
Plot type  
linear logarithmic

Reference line  
7.6

Y Range  
5.3 9.5

Selected Subgroups

Filtered Subgroups



# Subgroup Explorer

Target variable (Y-Axis)  
satisfact

Reference variable (X-Axis)  
number.of.subjects

Subgroup Filter  
employed

Choose a value  
non-working

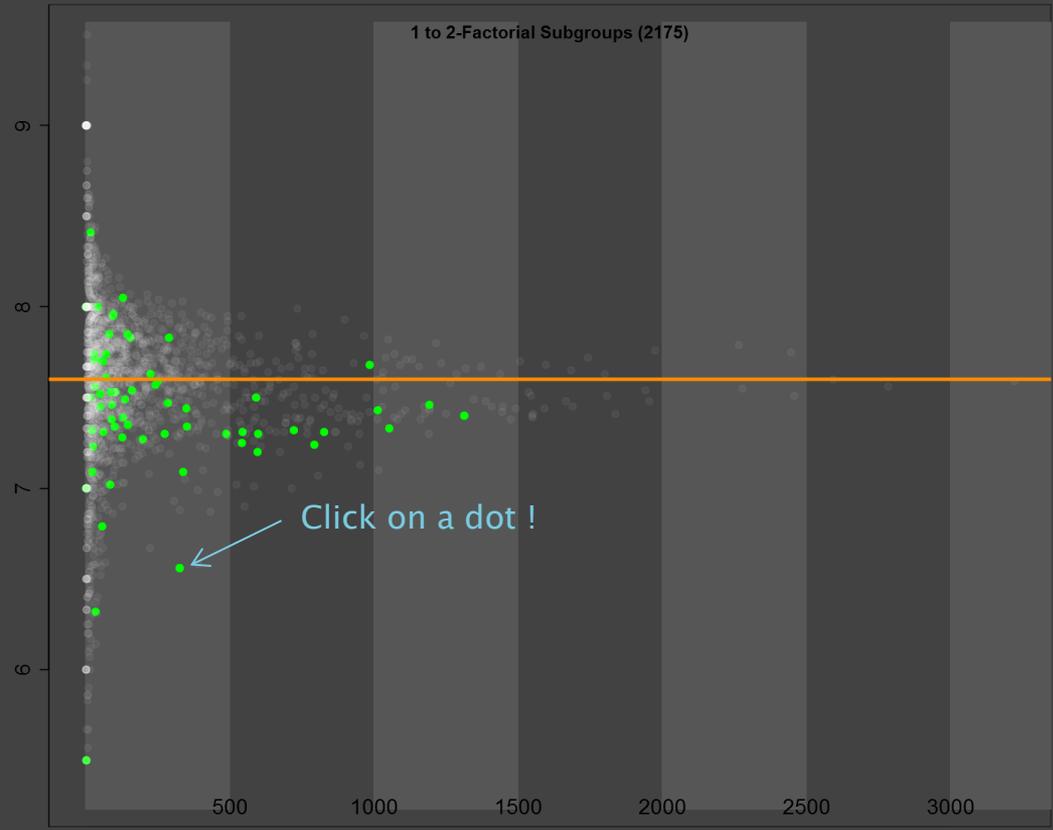
Subgroup levels  
1 2

Plot type  
 linear  logarithmic

Reference line  
7.6

Y Range  
5.3 9.5

Selected Subgroups   Filtered Subgroups



# Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

employed

Choose a value

non-working

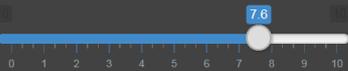
Subgroup levels



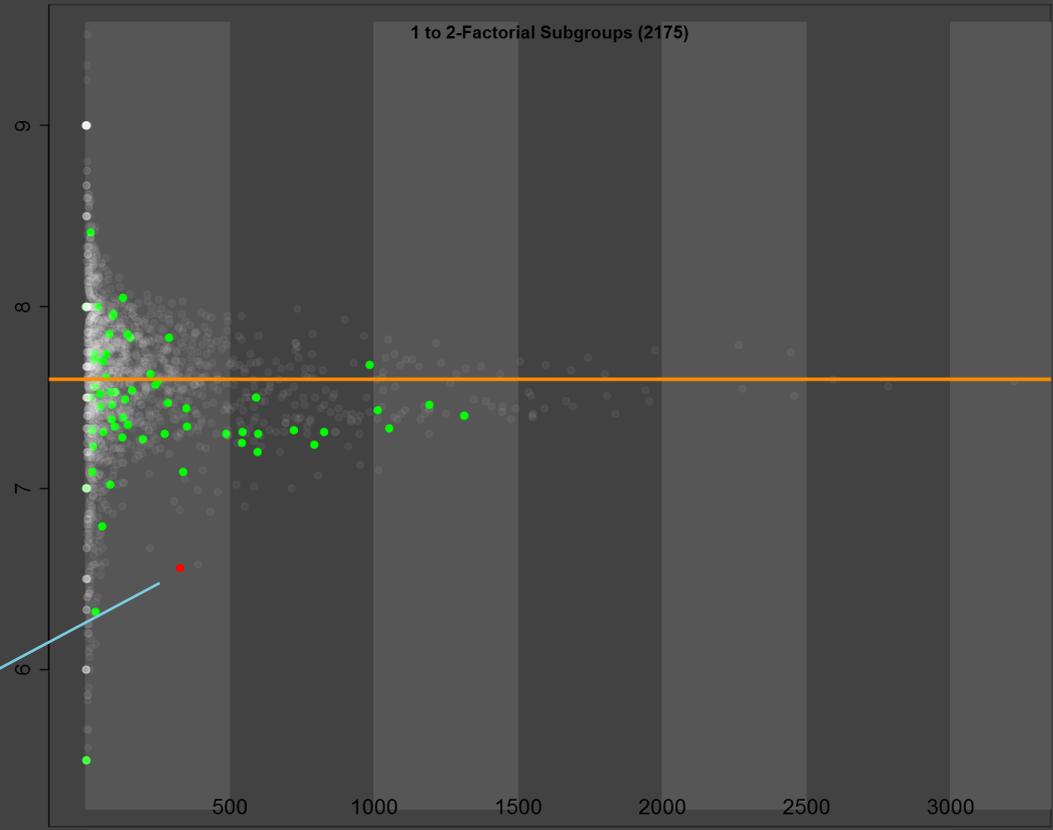
Plot type

linear logarithmic

Reference line



Y Range



Selected Subgroups Filtered Subgroups

Show 6 entries

SGID	number.of.subjects	satisfact	nfactors	employed	smoker
1143	1143	6.56	2	non-working	Y



Subgroup  
Explorer



# Contact



e-mail: [Bodo.Kirsch@bayer.com](mailto:Bodo.Kirsch@bayer.com)

R-PACKAGE: <https://cran.r-project.org/web/packages/subscreen/index.html>

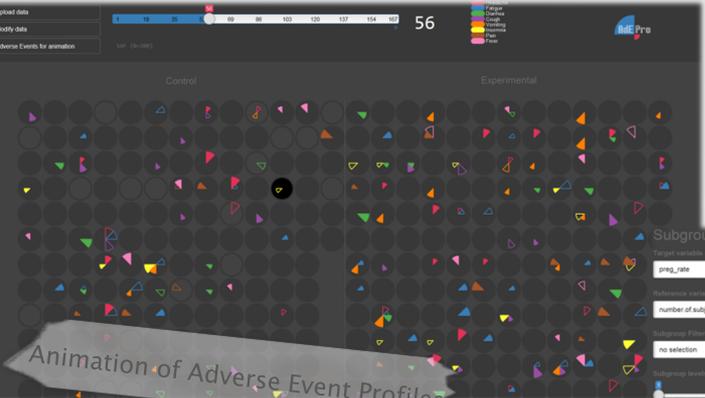
DATA: <http://wikis.fu-berlin.de/pages/viewpage.action?pageId=696156185>

GESIS – Leibniz-Institut für Sozialwissenschaften (2016): German General Social Survey – ALLBUS 2014. GESIS Datenarchiv, Köln. ZA5242 Datenfile Version 1.0.0, <http://dx.doi.org/10.4232/1.12437>

# Biostatistics Innovation Center



AdEPro



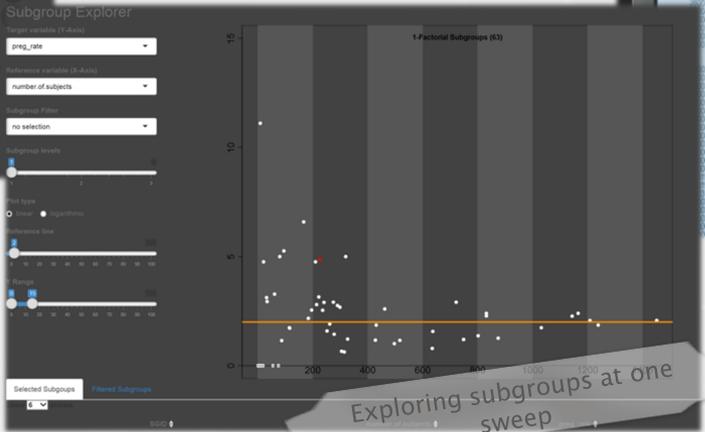
Animation of Adverse Event Profiles

Megaplots



all patient data on one screen

Subgroup Explorer



Exploring subgroups at one sweep